CALIFORNIA
Water Boards

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State Water Resources Control Board

RECEIVED
August 13, 2018
Commission on
State Mandates

August 13, 2018

VIA CSM DROPBOX

Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, 17-TC-03*, Comments of the State Water Resources Control Board

Dear Ms. Halsey:

The State Water Resources Control Board (State Water Board) submits these comments in opposition to Test Claim No. 17-TC-03 (Test Claim). The Test Claim, originally filed by the City of San Diego (City) with the Commission on State Mandates (Commission) on January 11, 2018,[1] seeks reimbursement of estimated and other unspecified costs of implementing or complying with requirements set forth in an amendment to the City's drinking water supply permit, the *Amendment to the Domestic Drinking Water Supply Permit Issued to the City of San Diego, Permit Amendment No. 2017PA-SCHOOLS* (Permit Amendment). The City contends that the Permit Amendment contains requirements that constitute unfunded mandates subject to subvention under article XIIIB, section 6, of the California Constitution. For the reasons set forth below, the Commission should deny the Test Claim in its entirety.

I. INTRODUCTION

The State Water Board issued the Permit Amendment to the City on January 18, 2017. The Permit Amendment, one of over 1,100 drinking water supply permit amendments the State Water Board simultaneously issued to both privately and publicly owned water systems, implements a statewide program to test for lead in drinking water on K-12 school sites. The Permit Amendment requires the City, upon receiving a request to test from a K-12 school, to conduct lead testing on the school site, analyze the results, and share these results with both the school and the State Water Board. The Permit Amendment requires the City to cover the costs associated with this testing, analysis, and reporting. The City is not obligated to take any

[1] The Commission initially found the Test Claim to be incomplete and allowed the City an opportunity to cure the defects, which the City did with a filing submitted on April 6, 2018. The Commission found that, with the additional submission, the Test Claim was complete and that it would retain the January 11, 2018 filing date.

corrective or remedial action in response to elevated lead levels found on any particular school site.

In this Test Claim, the City argues that Proposition 218 prevents the City from using water rates collected from its over 3,000,0000 customers to fund the school testing, which the City estimates to total $469,154.60. The City further argues that the State Water Board should have allowed the City to bill the K-12 school sites directly for the testing, which the City contends is authorized under Proposition 26. The State Water Board disagrees with the City's narrow application of Proposition 218 to the facts of this case because the City fails to recognize the benefit that all customers will receive from the increased lead testing.

The Commission need not address the City's Proposition 218 argument, however, because, as a threshold matter, the Permit Amendment does not constitute a "new program or higher level of service" subject to article XIIIB, section 6, of the California Constitution. For article XIIIB, section 6, to apply to a particular action, the action must be: (1) a program involving a government service peculiar to government; or (2) a program which imposes a unique requirement on local government. The Permit Amendment meets neither prong of this alternative test. Drinking water is provided by both government and non-government entities; providing drinking water is not a service peculiar to governmental agencies. And because the State Water Board imposed the exact same requirements in the Permit Amendment on both publicly and privately owned water systems, the Permit Amendment imposes no unique requirements on local governments. Accordingly, the Permit Amendment is not a new program or higher level of service under article XIIIB, section 6, and this Test Claim should be rejected.

II. BACKGROUND

This section provides an overview of the legal, regulatory, and factual context for the State Water Board's decision to issue the Permit Amendment.

A. Drinking Water Systems in California

While some California residents continue to rely on onsite private domestic wells for their drinking water supply, water systems provide drinking water to the vast majority of Californians. Water systems may be privately owned (i.e., private corporations, investor-owned utilities, mutual water companies) or publicly owned (i.e., cities, counties, special districts). Of the 6,970 water systems currently operating in California, 5,314 are private entities and 1,656 are public entities.[2] Thus, slightly more than 75 percent of drinking water systems are privately owned. Although the majority of the water systems in California are privately owned, many of the largest water systems are publicly owned. Accordingly, publicly owned water systems serve the majority of Californians.[3]

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[2] The State Water Board maintains a database of all known water systems in California, which can be accessed by the public at https://sdwis.waterboards.ca.gov/PDWW/. On May 18, 2018, a report was generated which classified all water systems as either private or public, and grouped each system based on geographic location (May 2018 Water System Report). Attachment 101. [Note. Page 406 of Attachment 101 shows a breakdown for publicly owned water systems, and page 408 shows a breakdown for privately owned water systems.]

[3] May 2018 Water System Report. Attachment 101. [See note in prior footnote 2.]

Water systems are divided into two general categories: public water systems and state small water systems.[4] A public water system is defined as a system that provides water for human consumption[5] to at least 15 or more connections or that regularly serves 25 or more people daily.[6] The term public water system, although somewhat misleading, denotes that the water system generally serves the public-at-large, not that the water system is publicly owned.[7] Public water systems may be either public or private entities.

Public water systems are further classified as either community water systems, non-community non-transient water systems, or transient water systems. Community water systems are city, county, regulated utilities, privately owned water systems, regional water systems, and water districts that generally provide water where people live.[8] Non-community non-transient water systems are schools and businesses which provide their own water, and which have employees or other people who regularly consume the water.[9] Transient water systems include entities such as rural gas stations, restaurants, and state and national parks that provide their own potable water source where most water is consumed by those who do not reside or regularly spend time there.[10]

A state small water system is defined as a water system that provides water for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.[11] Like public water systems, state small water systems may be either public or private entities.

The State Water Board directly regulates most public water systems, including the City. Although the State Water Board adopts regulations applicable to state small water systems, primary responsibility for regulating state small water systems rests with county local health officers.[12] Additionally, the State Water Board has delegated primary responsibility for regulating some small public water systems, which serve fewer than 200 service connections, to county local health officers.[13]

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[4] Please see the State Water Board, Decision Tree for Classification of Water Systems. Attachment 103.

[5] Human consumption is defined as the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes. (Health & Saf. Code, § 116275, subd. (d).)

[6] *Id.,* subd. (h).

[7] It should be noted that the term public water system comes from the federal Safe Drinking Water Act. (42 U.S.C., § 300f, subd. (4).)

[8] *Id.,* subd. (i).

[9] *Id.*, subd. (k).

[10] *Id.*, subd. (o).

[11] Health & Saf. Code, § 116275, subd. (n).

[12] *Id.*, § 116340.

[13] *Id.*, § 116330.

B. The State Water Board's Role in Regulating Drinking Water Systems

The State Water Board[14] is the state agency responsible for implementing both the federal Safe Drinking Water Act[15] and the California Safe Drinking Water Act,[16] and is charged with fulfilling the legislative mandate that every resident of California has the right to pure and safe drinking water.[17] To this end, and among other things, the State Water Board issues drinking water supply permits to public water systems, adopts regulations setting maximum contaminant levels for primary drinking water standards, provides financial assistance in the form of grants and low interest loans to water systems for infrastructure upgrades, and takes enforcement actions to ensure compliance with federal and state laws and regulations. Much of this work is accomplished by the 24 State Water Board, Division of Drinking Water (DDW) district offices.[18]

It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases.[19] It is also the policy of the state to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program that is more protective of public health than the minimum federal standards.[20] It is the State Water Board's responsibility to establish a drinking water regulatory program that provides for the orderly and efficient delivery of safe drinking water throughout the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.[21]

C. Health Effects of Lead in Drinking Water

The significant and severe health risks associated with prolonged lead exposure are well documented. There are multiple pathways to lead exposure, including but not limited to, eating, drinking, breathing, touching, and transplacental exposure. The United States Environmental Protection Agency (U.S. EPA) estimates that drinking water can make up 20% of exposure in children and up to 60% in infants.[22] Once it has entered the body, lead that is not excreted is absorbed and stored in the blood, mineralizing tissue (such as bones and teeth), and soft tissue (such as the liver, kidneys, lungs, brain, and heart).

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[14] The Drinking Water Program was transferred from California Department of Public Health to the State Water Board on July 1, 2014. (Health & Saf. Code, § 116271.) The transfer of responsibility aligned the state's drinking water and water quality programs in an integrated organizational structure to best position the state to both effectively protect water quality and public health as it relates to water quality, while meeting current needs and future demands on water supplies.

[15] 42 U.S.C. § 300f *et seq.*

[16] Health & Saf. Code, § 116270 *et seq.*

[17] *Id.*, § 116270, subd. (a); see Wat. Code, § 106.3, subd. (a).

[18] A map of the 24 district offices is attached as Attachment 104.

[19] Health & Saf. Code, § 116270, subd. (d).

[20] *Id.*, § 116270, subd. (f).

[21] *Id.*, § 116270, subd. (g).

[22] U.S. EPA, Basic Information about Lead in Drinking Water, https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

In particular, lead poisoning is a serious concern for children as absorption rates in children are greater than those of adults and the impacts more severe. According to the federal Agency for Toxic Substances & Disease Registry, children absorb 50 percent of ingested lead after a meal compared to 20 percent absorption by adults.[23] Once absorbed, the harmful impacts to children's health include decreased academic achievement and IQ, attention related behaviors, delayed puberty, and difficulties in coordinating fine movements.[24] One study that analyzed behavioral traits of about 1,300 preschool children found that average blood lead levels of 6.4 micrograms per deciliter were associated with increased anxiety, depression, and aggression.[25] This is a cause for concern since 2.6% of preschool children in the United States had a blood lead concentration greater than five micrograms per deciliter between 2007 and 2010.[26] Another study completed in 2002 examined blood lead levels in 4,853 primary-school children and found that average blood lead levels of 1.9 µg/dl lead to decreased performance in math and reading assessments. Furthermore, a study following 301 primary-school students found that children with elevated bone lead levels had higher instances of aggression and delinquency in classroom settings.[27]

Beyond the immediate health effects in children, lead poisoning can also have adverse health side effects later in adult life, including developmental problems in offspring, hypertension, renal effects, and reproductive problems.

D. Lead and Copper Rule

Elevated lead levels in drinking water are primarily caused by the interaction between the particular chemistry of the drinking water, or corrosivity, on one hand, and the pipes, valves, and fixtures of the water distribution system, on the other hand. Lead contained in the pipes, valves, and fixtures which comprise a water distribution system typically pose a health risk only when the water passing through the distribution system causes this lead to leach into the drinking water. As evidenced by the lead crisis in Flint, Michigan, the corrosivity water critically impacts lead leach rates and, ultimately, the amount of lead in drinking water at taps and faucets.[28]

The federal and state's Lead and Copper Rule (collectively, "Lead and Copper Rule") contain similar requirements designed to limit lead leaching, both when the drinking water flows through the water system's distribution system and when it leaves the water system and enters the private distribution systems of residences, businesses, and other facilities.[29] Community water

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[23] Tarrago, Oscar, and Mary Jean Brown, *Case Studies in Environmental Medicine: Lead Toxicity* (June 12, 2017) Environmental Health and Medicine Education, Centers for Disease Control and Prevention, p. 64. Attachment 105.

[24] *Id.*, at p. 76.

[25] Liu, Jianghong et al., *Blood Lead Levels and Children's Behavioral and Emotional Problems: A Cohort Study* (August 1, 2014) JAMA Pediatrics 168.8. Attachment 106.

[26] Lanphear, Bruce, *Prevention of Childhood Lead Toxicity* (July 2016) Pediatrics, Vol. 1, No. 1. Attachment 116.

[27] Needleman, Herbert, *Lead Poisoning* (August 18, 2003) Annual Review of Medicine Vol 55:209-222). Attachment 107.

[28] Pieper, Kelsey et. al, *Flint Water Crisis Caused by Interrupted Corrosion Control: Investigating "Ground Zero" Home* (February 1, 2017) Environ. Sci. & Tech, 2017, 51. Attachment 108. Masten, Susan et. al, *Flint Water Crisis: What Happened and Why* (December 2016) J Am Water Works Assoc. 108(12): 22-34. Attachment 109.

[29] 40 C.F.R. § 141.80 *et. seq.*; Cal. Code Regs., tit. 22, § 64670 *et. seq.* It is worth noting that that in its report discussing the upcoming revisions to the federal Lead and Copper Rule, U.S. EPA stated that it was considering "mandatory sampling for schools that are not public water systems in the revised LCR, given the presence of

(footnote continued on next page)

systems, such as operated by the City, are required to implement a monitoring and sampling program involving a pool of sample sites, which primarily consist of private residences.[30] Together, the sampling sites provide an overall picture of lead levels in the water customers are consuming—the assumption being that the houses and other facilities near sampling sites will have similar plumbing characteristics and, therefore, similar amounts of lead in tap water. Through routine sampling of private residences, water systems monitor the lead levels system-wide, and take appropriate corrective action should lead levels exceed the applicable action level, currently set at 0.015 mg/L in more than ten percent of the tap water samples.[31]

Elevated lead levels are addressed through corrosion control measures (i.e., actions to change the chemistry of the water), source water treatment, lead service line replacement, and public education.

E. The Permit Amendment

In January 2017, in response to the Governor's veto message for Senate Bill 334,[32] the State Water Board initiated a new program requiring any community water system which serves a K-12 school to test for lead in drinking water upon request by the K-12 school.[33] The lead sampling of drinking water in schools program was effectuated by the simultaneous amendment of more than 1,100 drinking water supply permits for community water systems.[34] Of the more than 1,100 permit amendments, approximately 450 were issued to privately owned and operated water systems.[35] The amending language for each drinking water permit is identical to the City's Permit Amendment at issue in this Test Claim.[36]

The City's Permit Amendment requires the City, upon receiving a request from a public or private K-12 school prior to November 1, 2019, to develop a sampling plan and to complete the

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(footnote continued from previous page)
vulnerable populations in the school environment and the ongoing challenges that schools continue to encounter with elevated lead levels in drinking water." U.S. EPA, *Lead and Copper Rule Revisions: White Paper* (Oct. 2016). Attachment 1247.

[30] The specific number of sampling sites depends on the size of the system. (40 C.F.R. § 141.86; Cal. Code Regs., tit. 22, § 64675.) Large systems, such as the City, are required to sample at 100 for standard monitoring and 50 sites for reduced monitoring. (*Ibid.*)

[31] 40 C.F.R. § 141.80; Cal. Code Regs., tit. 22, § 64678.

[32] Among other things, Senate Bill 334 would have required a school district which has a drinking water source which does not meet drinking water standards to provide an alternative drinking water supply to its students. Senate Bill No. 334 (2015-2016 Reg. Sess.). Attachment 112. In his veto message, Governor Brown directed the State Water Board to incorporate water quality testing in schools as part of the state Lead and Copper Rule. Office of the Governor, *Veto Message Regarding Senate Bill 334* (Oct. 9, 2015). Attachment 113.

[33] While the majority of K-12 schools are served by community water systems, there are some K-12 schools which operate their own public water systems. The lead testing initiative did not apply to these schools because the Lead and Copper rule already requires testing of these systems.

[34] These permit amendments are attached starting with Attachment 117.

[35] State Water Resources Control Board, Permit Amendment Spreadsheet (May 2018). Attachment 102.

[36] Although there may be some differences between the permit amendments with respect to the recipient or the signatory, the substantive requirements at issue in this Test Claim are identical among all permit amendments.

initial sampling within 90 days of the request.[37] One to five samples must be collected at each school from regularly used drinking water fountains, cafeteria/food preparation areas, or reusable bottle water filling stations.[38] Sampling results must be provided to the school and to DDW. Sampling results above 15 parts per billion (ppb) require additional sampling and analysis.[39]

An important element of the lead testing in schools program is that the requesting schools receive the lead testing at no charge. The Permit Amendment requires the City to cover all costs associated with the sampling activities, the laboratory fees for all lead samples, the reporting of results to DDW and the schools, and the laboratory coordination and instruction, as well as other costs associated with staff time spent complying with the Permit Amendment.[40] Consistent with the Lead and Copper rule, the City is not responsible for costs associated with any maintenance or corrective actions (i.e., replacing pipes or fixtures) needed to address elevated lead levels in the drinking water for any particular school site.[41]

F. Assembly Bill 746

In October 2017, Governor Brown signed Assembly Bill 746 (AB 746), which added new requirements for lead testing of potable water systems on schools which are similar to those contained in the Permit Amendment.[42] While the Permit Amendment only required the City to test for lead following a request from a K-12 school, AB 746 requires each community water system that serves a K-12 public school to affirmatively test for lead in the school site before July 1, 2019.[43] AB 746 requires certain notification procedures based on the results of the testing, and requires the local educational agency to take certain actions if the testing results indicate elevated levels of lead.[44]

AB 746 does not require testing in the following situations: (1) the school site was constructed or modernized after January 1, 2010; (2) the local educational agency of the school site is currently permitted as a public water system and is currently required to test for lead in the potable water system; and (3) the local educational agency completed lead testing of the potable water system after January 1, 2009, and has posted this information, including regarding any exceedances, on its website, (4) the local educational agency has requested testing from its community water system consistent with the requirements of AB 746, such as the testing required by the Permit Amendment.[45]

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[37] Permit Amendment, p. 2. If the sampling cannot be completed within 90 days of the request, the City shall complete the sampling consistent with a time schedule approved by the State Water Board, Division of Drinking Water.

[38] *Ibid.*

[39] *Id.*, p. 4.

[40] Permit Amendment, p. 4.

[41] *Id.*, p. 5.

[42] Assem. Bill No. 746 (2017-2018 Reg. Sess), Stats. 2017, ch. 746; Health & Saf. Code, § 116277.

[43] Health & Saf. Code, § 116277, subd. (a)(1).

[44] *Id.,* § 116277, subd. (a)(2) and (b)(2).

[45] Health & Saf. Code, § 116277, subd. (e).

III. OVERVIEW OF MANDATES LAW

Article XIIIB, section 6, of the California Constitution provides, "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." Implementing statutes clarify that no subvention of funds is required if: (1) the mandate imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation;[46] (2) the local agency proposed the mandate;[47] or (3) the local agency has the authority to levy service charges, fees, or assessments sufficient to pay for the new program or higher level of service.[48]

Numerous judicial decisions have further defined limitations on the requirements for subvention of funds. Specifically, subvention is only required if expenditure of tax monies is required, and not if the costs can be reallocated or paid for with fees.[49] In addition, reimbursement to local agencies is required only for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not entitled to subvention.[50] The fact that a requirement may single out local governments is not dispositive; where local agencies are required to perform the same functions as private industry, no subvention is required.[51]

IV. ARGUMENTS

A. The Permit Amendment is Not a New Program or Higher Level of Service and, Therefore, Is Not an Unfunded State Mandate

The threshold issue in this matter is whether the Permit Amendment constitutes a "new program or higher level of service" for purposes of article XIIIB, section 6, of the California Constitution. A determination that the Permit Amendment is not a new program or higher level of service would render article XIIIB, section 6, inapplicable and no subvention would be required.

The California Supreme Court has established that only those programs which involve a function or service peculiar to government, or which impose unique requirements on local government, are eligible for subvention. The Permit Amendment satisfies neither prong of this test. With respect to the first prong, the City's operation of a community water system is not a function or service peculiar to local government because public water systems are operated by both private and governmental entities. As for the second prong, the Permit Amendment imposes no unique requirements on the City because the State Water Board imposed the exact

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[46] Gov. Code, § 17556, subd. (c).

[47] *Id.*, subd. (a).

[48] *Id.*, subd. (d).

[49] *County of Los Angeles v. Commission on State Mandates* (2003) 110 Cal.App.4th 1176; *Redevelopment Agency v. Commission on State Mandates* (1997) 55 Cal.App.4th 976.

[50] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

[51] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

same lead testing in school requirements on over 1,100 publicly and privately owned water systems.

(1) To Constitute a New Program or Higher Level of Service, a Program Must Provide a Government Service Which is Peculiar to Government or Impose Unique Requirements on a Local Government

Not every new law or state requirement constitutes a new program or higher level of service. In *County of Los Angeles v. State of California*,[52] the California Supreme Court expressed concern that, read broadly, article XIII B, section 6 could be construed to apply each and every time a new law of general application was passed—thus requiring the Legislature to discern the likely effect on local governments and provide an appropriation to pay for each incidental increase in local costs.[53] Rejecting this interpretation, the Supreme Court addressed the meaning of "new program or higher level of service" as follows:

> Looking at the language of [article XIII B, section 6] then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in services provided by local agencies in existing "programs." But the term program is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term—*programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.*[54]

As to the first prong of this alternative test, the Supreme Court further narrowed the range of programs subject to subvention:

> The concern which prompted inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. . . .*[T]he intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply general to all state residents and entities.*[55]

Courts have consistently applied this "peculiarly governmental function" requirement when determining whether a particular program is subject to subvention.[56] Thus, the alternative test

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[52] *County of Los Angeles v. State of California*, *supra*, 43 Cal.3d 46.

[53] *Id.*, at p. 57.

[54] *Id.*, at p. 56 (italics added).

[55] *Id.*, at pp. 56-57 (italics added).

[56] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537-38; *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545-46.

for determining whether a particular state action is a new program or higher level of service is as follows: (1) programs that carry out the governmental function of providing services to the public which are peculiar to government; or (2) laws which, to implement a state policy, impose unique requirements on local governments and do not generally apply to all residents and entities in the state.[57] As discussed below, the Permit Amendment does not meet either prong of this alternative test and, as such, is not a new program or higher level of service subject to subvention.

(2) The Permit Amendment Does Not Involve a Function Peculiar to Government

The Permit Amendment requires the City, as the owner and operator of a community water system, to provide lead testing services to K-12 schools. The service or function at issue relates to the City's provision of drinking water as a public water system. Thus, to meet the first prong of the Supreme Court's alternative test, the operation of its public water system must be a service that is peculiar to government. This test is not met here.

The Court of Appeal's decision in *Carmel Valley Fire Protection District v. State of California*[58] is instructive in determining what types of services are peculiar to government. In *Carmel Valley*, three counties sought reimbursement of funds expended in complying with a state order to provide protective clothing and equipment for county fire fighters.[59] In ruling that the state order met the first prong of the Supreme Court's test, the court explained:

> First, fire protection is a peculiarly governmental function. [Citation.] 'Police and fire protection are two of the most essential and basic functions of local government.' [citing to *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107 [133 Cal.Rptr. 649].] This classification is not weakened by State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge classical governmental function.

Here, the court equated peculiar with essential and basic functions of local government, under circumstances where there was a mere assertion that the service was provided by private entities without any indication that private provision of this service was anything but de minimis. This comports with the dictionary definition of "peculiar" as "belonging exclusively to" or "distinctive in nature or character from others."[60]

The Supreme Court's decision in *City of Sacramento v. State of California*[61] interprets service peculiar to government in a similar manner. *City of Sacramento* involved claims for subvention

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[57] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874 (reaffirming the test set forth in *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56); *Lucia Mar Unified School Dist. v. Bill Honig* (1988) 44 Cal.3d 830, 835.

[58] *Carmel Valley Fire Protection District v. State of California*, supra, 190 Cal.App.3d 521.

[59] *Id.*, at pp. 530-32.

[60] www.dictionary.com (last visited on August 10, 2018).

[61] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

of costs incurred in providing unemployment compensation coverage for city employees.[62] In rejecting this claim, the Supreme Court distinguished the nature of providing unemployment compensation coverage with that of providing education to persons with disabilities, noting that "[t]he education of handicapped students was clearly a *traditional* 'governmental' service to the public."[63] Taken together, *Carmel Valley* and *City of Sacramento* construe a service peculiar to government as a service which is "essential and basic," "classical," and "traditional."

The decisions in *Carmel Valley and City of Sacramento* also comport with the policy rationale underpinning the Supreme Court's alternative test. In *County of Los Angeles v. State of California*, the Supreme Court expressly rejected the argument that subvention was required for laws of general application, noting that:

> The language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. We believe that if the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated the word "program" was being used in such a unique fashion. [Citations.][64]

The Supreme Court was similarly concerned with impacts to the basic functioning of the Legislature.

> Were section 6 construed to require state subvention for the incidental cost to local governments of general laws, the result would be far-reaching indeed. Although such laws may be passed by simple majority vote of each house of the Legislature (art. IV, § 8, subd. (b)), the revenue measures necessary to make them effective may not. A bill which will impose costs subject to subvention of local agencies must be accompanied by a revenue measure providing the subvention required by article XIII B. (Rev. & Tax. Code, §§ 2255, subd. (c).) Revenue bills must be passed by two-thirds vote of each house of the Legislature. (Art. IV, § 12, subd. (d).) Thus, were we to construe section 6 as applicable to general legislation whenever it might have an incidental effect on local agency costs, such legislation would become effective only if passed on a supermajority vote. Certainly no such intent is reflected in the language or history of article XIII B or section 6.[65]

By limiting the type of governmental services peculiar to government to those which are essential, basic, classical, and traditional to government, the holdings in *Carmel Valley* and *City of Sacramento* prevent the application of section 6 to every law that impacts any of the myriad of services that a modern large city, such as the City, provides to its residents. Absent this interpretation, it is conceivable that any law of general application impacting a service provided

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[62] *Id.*, at pp. 57-59.

[63] *Id.*, at p. 68 (discussing the Supreme Court's prior decision in *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830) (emphasis added).

[64] *County of Los Angeles v. State of California*, supra, 43 Cal.3d 46, 57.

[65] *Ibid* (footnote omitted).

by the City could be subject to subvention—which is expressly what the Supreme Court rejected in *County of Los Angeles* and sought to avoid through its alternative test.

Additionally, *Carmel Valley* and *City of Sacramento* are consistent with a line of cases decided prior to California's adoption of the Government Claims Act,[66] and which involved tort claims for damages against local governments.[67] The threshold issue in these cases was whether the doctrine of sovereign immunity provided a shield against liability. Whether sovereign immunity applied turned on whether governmental activity at issue was categorized as a "government" or "public" activity or a "corporate" or "private" activity. The California Supreme Court explained the distinction between the public and private functions of government as follows:

> [A] municipal corporation, when carrying on a public service, such as furnishing water, light, heat, or power to its inhabitants is not acting in its governmental capacity as a sovereign, but is acting in a proprietary capacity…[68]

The court in *In Re Bonds of Orosi Public Utility District* v. *McHuaig*[69] further explained:

> We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, if performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital and for municipal purposes.[70]

Thus, historically, California courts distinguished between those functions which are utilitarian in nature, such as providing water[71] and power[72] to its residents, and those functions which implicate the unique authority vested in the state and its political subdivisions, such as fire and police.[73] Although for the purposes of sovereign immunity, the distinction between the corporate and governmental functions of government is no longer relevant,[74] this line of cases remains appropriate and persuasive authority for defining what constitutes a service peculiar to government.

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[66] Gov. Code, § 810 *et. seq.*; see *State Dept. of State Hospitals v. Superior Court* (2015) 61 Cal.4th 339, 347.

[67] *Chafor v. City of Long Beach* (1917) 174 Cal. 478 (involving a suit for damages following a death caused by the collapse of a City-owned pier); *Plaza v. City of San Mateo* (1954) 123 Cal.App.2d 103 (involving injuries sustained by a wayward golf ball from a city maintained golf course); *City of Concord v. Tony Freitas* (1956) 144 Cal.App.2d 822 (claim against city involved action for false arrest, false imprisonment, and assault and battery).

[68] *City of Pasadena v. Railroad Commission of California* (1920) 183 Cal. 526, 529, disapproved of by *County of Inyo v. Public Utilities Com.* (1980) 26 Cal.3d 154.

[69] *In Re Bonds of Orosi Public Utility District* v. *McHuaig* (1925) 196 Cal. 43.

[70] *Id.*, at p. 58.

[71] *City of South Pasadena v. Pasadena Land & Water Co.* (1908) 152 Cal. 579, 573; *Nourse v. City of Los Angeles* (1914) 25 Cal.App 384, 385; *Marin Water and Power Co. v. Town of Sausalito* (1920) 49 Cal.App 78, 79.

[72] *Davoust v. City of Alameda* (1906) 149 Cal. 69, 72.

[73] *Chappelle v. City of Concord, supra*, 144 Cal.App.2d 822, 825 (holding that the operation of a police power is a governmental function).

[74] *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211, 219-20 (abrogating governmental immunity).

The principle that water service should be considered in the nature of a utility function, often provided by private entities, rather than a basic governmental function, is underscored by the Service Duplication Law.[75] Under the Service Duplication Law, a local government must provide compensation to a privately owned drinking water supplier when the local government provides or extends drinking water service into the service area of the privately owned supplier.[76] This statutory requirement for compensation, not for appropriation of any fixtures or equipment but merely because the local government is providing a service that would otherwise be provided by the private water supplier, amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments.

Turning to the Permit Amendment at issue in this Test Claim, simply put, the provision of drinking water is not a function or service which is peculiar to local government. As discussed above, statewide, the overwhelming majority (over 75 percent) of drinking water systems are privately owned. No state or federal law requires a city or county to operate a drinking water system. Indeed, many cities and counties do not provide potable water to their residents and, instead, rely on private companies to provide drinking water to city and county residents. Unlike the provision of firefighting services in *Carmel Valley* or the provision of education services to persons with disabilities in *City of Sacramento*, operating a public water system is not an "essential", "basic", "classical" or "traditional" government function. Drinking water service is a utility service, provided by both public and private entities to their customers.

(3) The Permit Amendment Does Not Impose Unique Requirements on The City

To constitute a program under the second prong of the alternative test, the Permit Amendment must, "to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[77] To determine whether the Permit Amendment meets this definition, the Permit Amendment must be viewed in context of the State Water Board's statewide program for lead testing of drinking water in schools, as implemented by the more than 1,100 simultaneously-adopted and substantially identical permit amendments. When viewed within this larger programmatic context, the Permit Amendment imposes no unique requirements on the City and is not a new program subject to subvention under article XIIIB, section 6, of the California Constitution.

The California Supreme Court specifically endorsed considering the larger context of a particular action when determining whether an action meets the definition of a program in *City of Sacramento v. State of California*.[78] In that case, the law at issue required local governments to provide the same unemployment compensation protection as was required of private employers.[79] The City argued that because the law applied only to local governments, the requirements were uniquely imposed on local governments and, thus, required subvention.[80] The Supreme Court rejected this argument, explaining:

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[75] Pub. Util. Code, § 1501 *et seq.*

[76] *Id.*, § 1504.

[77] *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56.

[78] *City of Sacramento v. State of California, supra*, 50 Cal.3d 51

[79] *Id., at p.* 67.

[80] *Id.*, at p. 68.

> The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision.[81]

Although the facts in this Test Claim differ somewhat from the *City of Sacramento*, the rule applies equally—when determining whether a state action imposes unique requirements on a local agency, other relevant laws or actions may and should be considered.

As explained above, the City was one of more than 1,100 public water systems that received permit amendments substantially identical to the City's Permit Amendment. The State Water Board issued these permit amendments within a few days of each other.[82] Collectively, these permit amendments, including the Permit Amendment at issue in this Test Claim, effectuate the statewide lead testing of drinking water in schools program. Of the over 1,100 public water systems that received the permit amendments, approximately 450 water systems are privately owned. Accordingly, the Permit Amendment, as part of the State Water Board's lead testing in schools program, imposed no unique requirements on the City that were not imposed on the privately owned water systems.

Failure to consider the larger programmatic context of the Permit Amendment could result in numerous public water systems claiming that it's individual drinking water permit contains "unique" requirements—thus subjecting the State Water Board to potentially hundreds of individual claims before the Commission based on the same permit language. Viewing each individual drinking water permit in a vacuum, and not relative to other similarly situated water systems, could result in a determination that each requirement was unique to that particular water system because the drinking water permit only applies to that entity—even if the State Water Board imposed the same requirements on other privately owned and operated water systems as it has here.[83] This cannot be the result the voters intended to embrace in the ballot measure giving rise to article XIII B, section 6.[84]

Moreover, the relevant state policy animating the lead testing of drinking water in schools program and the Permit Amendment is the California Safe Drinking Water Act. The California

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[81] *Id.*, at p. 69 (emphasis added).

[82] Permit amendments were issued on or about January 17, 2017.

[83] The State Water Board recognizes that in its decision in *In Re Test Claim on Los Angeles Regional [Water] Quality Control Board Order No. 01-182, Permit CAS004001*, the Commission on State Mandates rejected the argument that, because National Pollutant Discharge Elimination System ("NPDES") permits generally apply to both public and private entities, the particular NPDES permit at issue did not constitute a program subject to subvention. (*In Re Test Claim on Los Angeles Regional [Water] Quality Control Board Order No. 01-182, Permit CAS004001, Case Nos. 03-TC-04, 03-TC-19, 03-TC-20, 03-TC-21.*) Relying the Supreme Court's decision in *County of Los Angeles v. Commission on State Mandates*, the Commission explained that the issue is not "whether NPDES permits generally constitute a 'program' within the meaning of article XIII B, section 6," it is whether the particular permit at issue constitutes a program. (*Ibid.*, citing to *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898, 919). The State Water Board does not read the Commission's decision, or the Supreme Court's decision in *County of Los Angeles*, as precluding the Commission from considering identical language from other drinking water system permits in determining whether the Permit Amendment imposes a unique requirement on the City.

[84] *County of Los Angeles, v. State of California, supra*, 43 Cal.3d 46, 57.

Safe Drinking Water Act, a law of general application, proclaims that "[e]very resident of California has the right to pure and safe drinking water,"[85] and "[i]s intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable."[86] The health effects of elevated lead levels in children is well documented, and the lead testing of schools program simply effectuates the Safe Drinking Water Act.[87]

In conclusion, the Permit Amendment imposes the same lead testing requirements on over 1,100 publicly and privately owned public water systems, including the City. The Permit Amendment includes no unique requirements on the City, or local governments generally. The Permit Amendment was authorized by the California Safe Drinking Water Act, a law of general application. As such, the Permit Amendment fails to meet the second prong of the Supreme Court's alternative test, and is not a program subject to subvention under article XIIIB, section 6, of the California Constitution.

B. Proposition 218 Does Not Prevent the City from Raising Water Rates to Cover Costs Associated with The Permit Amendment

Even assuming the Permit Amendment is a new program or higher level of service, the Test Claim should be rejected because the City has the authority to levy service charges, fees, or assessments sufficient to pay for the costs of compliance with the Permit Amendment. Contrary to the City's argument, Proposition 218 provides no constitutional bar to the City's use of water rates to fund the school testing required by the Permit Amendment.

The City does not claim that it lacks authority to raise water rates to fund compliance with the Permit Amendment. Rather, the City contends that Proposition 218 constitutionally bars the City from using water rates to fund its compliance with the Permit Amendment.[88] The City argues that because the testing for lead in schools has no relationship to providing water service to other water system customers, allowing the ratepayer funds to absorb the costs of lead sampling in schools would result in water service fees exceeding the proportional cost attributable to the parcel.[89] Furthermore, the City contends that the school lead testing is not a property-related service that can properly be funded by water rates.[90]

The City's argument fails because it ignores the direct benefit that compliance with the Permit Amendment confers on all water system as a whole and, by extension, each of the ratepayers. As discussed above, the Lead and Copper rule requires testing for lead in private residences, the purpose being to ensure that the City's water does not contain excess lead or exacerbate

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[85] Health & Saf. Code, § 116270, subd. (a).

[86] *Id.*, § 116270, subd. (e).

[87] Recently, on remand from the California Supreme Court's decision in *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, the Superior Court for the County of Los Angeles found that the underlying federal and state prohibition against pollution and unlawful discharges, and not the particular permit at issue, was the relevant "state policy" for purposes of determining application of article XIII B, section 6. (*Department of Finance v. Commission on State Mandates* (Sup. Ct. Los Angeles County, 1986, No. BS130730) Judgment, pp. 12-13.) And, because the federal and state prohibition against unlawful discharges is a law of general application, the individual permit effectuating this prohibition was not a program subject to subvention under article XIIIB, section 6. (*Ibid.*)

[88] Test Claim, Section 5: Written Narrative, pp. 41-42.

[89] *Id.*, p. 41.

[90] *Ibid.*

lead leaching from pipes and fixtures in customers' homes and businesses. By requiring additional lead testing in the schools, the Permit Amendment functionally extends the Lead and Copper rule by providing additional testing points which can inform the City about how the water chemistry in its distribution network may be impacting not only the particular schools, but residences who obtain water from a common source or through a common delivery system.[91] And to the extent the City takes corrective action, for example by additional treatment to reduce corrosivity, all users, not just the schools, will benefit for from the reduced threat of lead exposure. Therefore, just as the testing of private residences under the Lead and Copper rule benefits the water system as a whole, and by extension, each of the ratepayers, not just the owners of the residences being tested, the lead testing in K-12 schools provides a similar direct benefit to each ratepayer by providing additional testing inputs the City can use to optimize its water chemistry and quality to reduce the amount of lead in in all residences and businesses.

Additionally, the lead testing in schools provides a direct benefit for each ratepayer by maintaining, and possibly, improving property values. Reports and studies have consistently found a positive correlation between real property values and good schools.[92] High lead levels in school drinking water can adversely impact the desirability of a particular school, which would, in turn, reduce property values of surrounding residences. By identifying which schools must address excess lead levels in its drinking system, the lead testing requirements further the goal of ensuring that students do not drink water containing high levels of lead. Ultimately, this effort to rid schools of drinking water containing high lead levels improves the desirability of particular schools, which has a correspondingly positive affect on surrounding property values.

In addition, schools often are used for community meetings, and people within the community often use school playing fields. School facilities, including drinking fountains, provide a benefit to the entire community, and the entire community benefits from provision of safe drinking water.

Because compliance with the Permit Amendment provides a direct benefit to each ratepayer, the lead testing of K-12 schools is a property related service that can be appropriately funded through water rates.

It should also be recognized that the City's argument that it cannot charge fees for the costs of compliance with the Permit Amendment assumes that the permit amendment is a new program or higher level of service. If the Permit Amendment is a not a new program or higher level of service, as discussed in section IV. A. above, all ratepayers benefit from compliance, and the City can set water rates to cover costs for compliance, because compliance is required for the City to provide water service at all.

A private entity or local government cannot operate a public water system without a permit from the State Water Board.[93] The permit is subject to revocation for failure to comply.[94] If the Permit

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[91] Edmund G. Brown, Oct. 9, 2015, Veto Message Regarding Senate Bill 334 (directing the State Water Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their Lead and Copper rule). Attachment 111.

[92] Harney, *School Quality is tied [to] home prices in new study. But other factors may affect values*, The Washington Post (Oct. 4, 2013), Attachment 113; National Assn. of Realtors, Realtor Magazine, *Survey: Buyers Will Pay More for Good Schools* (July 30, 2013), Attachment 114; Rothwell, Jonathan, *Housing Costs, Zoning, and Access to High Scoring Schools* (April 2012), Attachment 115.

[93] Health & Saf. Code, § 116525, subd. (a).

Amendment is not a new program or higher level of service, and the City therefore can neither obtain a subvention or be excused from compliance under article XIIIB, section 6, of the California Constitution,[95] the City must comply with the Permit Amendment in order to provide drinking water service within its service area. Compliance with permit conditions benefits all customers of the City and other public water systems, because compliance is necessary for the public water system to continue operating as a utility providing drinking water service to any of the customers. Therefore, drinking water fees may spread the cost of compliance among all customers. There is no requirement that when drinking water requirements are set to protect sensitive groups such as children that the costs of compliance be imposed solely on households, businesses and public facilities that include or serve those sensitive groups. Because permit compliance is a condition necessary to enter or continue in the business of providing drinking water service, all customers benefit from the utility's compliance with permit requirements. Both public entities like the City and the privately owned utilities that would step in if a public entity decided to cease providing drinking water service may appropriately include costs of compliance in the charges to its customers.

V. CONCLUSION

For the reasons set forth above, the Commission should deny the Test Claim in its entirety.

I certify and declare under penalty of perjury under laws of the State of California that the foregoing facts are true and correct to the best of my personal knowledge or information or belief. I further declare that all documents attached are true and correct copies of such documents as they exist in the State Water Board's files, or were obtained from publicly available sources.

Very Truly Yours,

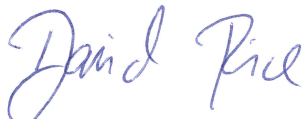

David Rice
Senior Staff Counsel

cc: Service List via CSM Dropbox

(footnote continued from previous page)
[94] *Id.*, § 116625.

[95] See Cal. Const., art. XIIIB, § 6, subd. (b).

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KeyCite Yellow Flag - Negative Treatment
Proposed Legislation

42 U.S.C.A. § 300f

§ 300f. Definitions

Effective: December 16, 2016
Currentness

For purposes of this subchapter:

(1) The term "primary drinking water regulation" means a regulation which--

(A) applies to public water systems;

(B) specifies contaminants which, in the judgment of the Administrator, may have any adverse effect on the health of persons;

(C) specifies for each such contaminant either--

(i) a maximum contaminant level, if, in the judgment of the Administrator, it is economically and technologically feasible to ascertain the level of such contaminant in water in public water systems, or

(ii) if, in the judgment of the Administrator, it is not economically or technologically feasible to so ascertain the level of such contaminant, each treatment technique known to the Administrator which leads to a reduction in the level of such contaminant sufficient to satisfy the requirements of section 300g-1 of this title; and

(D) contains criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including accepted methods for quality control and testing procedures to insure compliance with such levels and to insure proper operation and maintenance of the system, and requirements as to (i) the minimum quality of water which may be taken into the system and (ii) siting for new facilities for public water systems.

At any time after promulgation of a regulation referred to in this paragraph, the Administrator may add equally effective quality control and testing procedures by guidance published in the Federal Register. Such procedures shall be treated as an alternative for public water systems to the quality control and testing procedures listed in the regulation.

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(2) The term "secondary drinking water regulation" means a regulation which applies to public water systems and which specifies the maximum contaminant levels which, in the judgment of the Administrator, are requisite to protect the public welfare. Such regulations may apply to any contaminant in drinking water (A) which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of the persons served by the public water system providing such water to discontinue its use, or (B) which may otherwise adversely affect the public welfare. Such regulations may vary according to geographic and other circumstances.

(3) The term "maximum contaminant level" means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

(4) Public water system.--

(A) In general.--The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (ii) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

(B) Connections.--

(i) In general.--For purposes of subparagraph (A), a connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection, if--

(I) the water is used exclusively for purposes other than residential uses (consisting of drinking, bathing, and cooking, or other similar uses);

(II) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that alternative water to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulation is provided for residential or similar uses for drinking and cooking; or

(III) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to achieve the equivalent level of protection provided by the applicable national primary drinking water regulations.

(ii) Irrigation districts.--An irrigation district in existence prior to May 18, 1994, that provides primarily agricultural service through a piped water system with only incidental residential or similar use shall not be

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considered to be a public water system if the system or the residential or similar users of the system comply with subclause (II) or (III) of clause (i).

(C) Transition period.--A water supplier that would be a public water system only as a result of modifications made to this paragraph by the Safe Drinking Water Act Amendments of 1996 shall not be considered a public water system for purposes of the Act until the date that is two years after August 6, 1996. If a water supplier does not serve 15 service connections (as defined in subparagraphs (A) and (B)) or 25 people at any time after the conclusion of the 2-year period, the water supplier shall not be considered a public water system.

(5) The term "supplier of water" means any person who owns or operates a public water system.

(6) The term "contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(7) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(8) The term "Agency" means the Environmental Protection Agency.

(9) The term "Council" means the National Drinking Water Advisory Council established under section 300j-5 of this title.

(10) The term "municipality" means a city, town, or other public body created by or pursuant to State law, or an Indian Tribe.

(11) The term "Federal agency" means any department, agency, or instrumentality of the United States.

(12) The term "person" means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency).

(13)(A) Except as provided in subparagraph (B), the term "State" includes, in addition to the several States, only the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Northern Mariana Islands, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands.

(B) For purposes of section 300j-12 of this title, the term "State" means each of the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico.

(14) The term "Indian Tribe" means any Indian tribe having a Federally recognized governing body carrying out substantial governmental duties and powers over any area. For purposes of sections 300j-12, 300j-19a, and 300j-19b of this title, the term includes any Native village (as defined in section 1602(c) of Title 43).

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(15) Community water system.--The term "community water system" means a public water system that--

(A) serves at least 15 service connections used by year-round residents of the area served by the system; or

(B) regularly serves at least 25 year-round residents.

(16) Noncommunity water system.--The term "noncommunity water system" means a public water system that is not a community water system.

CREDIT(S)

(July 1, 1944, c. 373, Title XIV, § 1401, as added Pub.L. 93-523, § 2(a), Dec. 16, 1974, 88 Stat. 1661; amended Pub.L. 94-317, Title III, § 301(b)(2), June 23, 1976, 90 Stat. 707; Pub.L. 94-484, Title IX, § 905(b)(1), Oct. 12, 1976, 90 Stat. 2325; Pub.L. 95-190, § 8(b), Nov. 16, 1977, 91 Stat. 1397; Pub.L. 99-339, Title III, § 302(b), June 19, 1986, 100 Stat. 666; Pub.L. 104-182, Title I, § 101(a), (b)(1), Aug. 6, 1996, 110 Stat. 1615, 1616; Pub.L. 114-322, Title II, § 2111, Dec. 16, 2016, 130 Stat. 1729.)

42 U.S.C.A. § 300f, 42 USCA § 300f
Current through P.L. 115-223. Title 26 current through 115-227.

End of Document

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40 C.F.R. § 141.80

§ 141.80 General requirements.

Effective: December 10, 2007
Currentness

(a) Applicability and effective dates.

(1) The requirements of this subpart I constitute the national primary drinking water regulations for lead and copper. Unless otherwise indicated, each of the provisions of this subpart applies to community water systems and non-transient, non-community water systems (hereinafter referred to as "water systems" or "systems").

(2) [Reserved by 72 FR 57814]

(b) Scope. These regulations establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps.

(c) Lead and copper action levels.

(1) The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).

(2) The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).

(3) The 90th percentile lead and copper levels shall be computed as follows:

(i) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest

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contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(ii) The number of samples taken during the monitoring period shall be multiplied by 0.9.

(iii) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (c)(3)(ii) is the 90th percentile contaminant level.

(iv) For water systems serving fewer than 100 people that collect 5 samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(v) For a public water system that has been allowed by the State to collect fewer than five samples in accordance with § 141.86(c), the sample result with the highest concentration is considered the 90th percentile value.

(d) Corrosion control treatment requirements.

(1) All water systems shall install and operate optimal corrosion control treatment as defined in § 141.2.

(2) Any water system that complies with the applicable corrosion control treatment requirements specified by the State under §§ 141.81 and 141.82 shall be deemed in compliance with the treatment requirement contained in paragraph (d)(1) of this section.

(e) Source water treatment requirements. Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the State under § 141.83.

(f) Lead service line replacement requirements. Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in § 141.84.

(g) Public education requirements. Pursuant to § 141.85, all water systems must provide a consumer notice of lead tap water monitoring results to persons served at the sites (taps) that are tested. Any system exceeding the lead action level shall implement the public education requirements.

(h) Monitoring and analytical requirements. Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subpart shall be completed in compliance with §§ 141.86, 141.87, 141.88, and 141.89.

(i) Reporting requirements. Systems shall report to the State any information required by the treatment provisions of this subpart and § 141.90.

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(j) Recordkeeping requirements. Systems shall maintain records in accordance with § 141.91.

(k) Violation of national primary drinking water regulations. Failure to comply with the applicable requirements of §§ 141.80–141.91, including requirements established by the State pursuant to these provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.

Credits
[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 72 FR 57814, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Notes of Decisions (10)

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.81

§ 141.81 Applicability of corrosion control treatment steps to small, medium-size and large water systems.

Effective: December 10, 2007
Currentness

(a) Systems shall complete the applicable corrosion control treatment requirements described in § 141.82 by the deadlines established in this section.

(1) A large system (serving >50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (d) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(2) or (b)(3) of this section.

(2) A small system (serving ≤3300 persons) and a medium-size system (serving >3,300 and ≤50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (e) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(1), (b)(2), or (b)(3) of this section.

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one of the criteria specified in paragraphs (b)(1) through (b)(3) of this section. Any such system deemed to have optimized corrosion control under this paragraph, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the State determines appropriate to ensure optimal corrosion control treatment is maintained.

(1) A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with § 141.86.

(2) Any water system may be deemed by the State to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the State that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the State makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with § 141.82(f). Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the State–designated optimal water quality control parameters in accordance with § 141.82(g) and continue to conduct lead and copper tap and water quality parameter sampling in accordance with § 141.86(d)(3) and § 141.87(d), respectively. A system shall provide the State with the following information in order to support a determination under this paragraph:

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(i) The results of all test samples collected for each of the water quality parameters in § 141.82(c)(3).

(ii) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in § 141.82(c)(1), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment;

(iii) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and

(iv) The results of tap water samples collected in accordance with § 141.86 at least once every six months for one year after corrosion control has been installed.

(3) Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with § 141.86 and source water monitoring conducted in accordance with § 141.88 that demonstrates for two consecutive 6–month monitoring periods that the difference between the 90th percentile tap water lead level computed under § 141.80(c)(3), and the highest source water lead concentration is less than the Practical Quantitation Level for lead specified in § 141.89(a)(1)(ii).

(i) Those systems whose highest source water lead level is below the Method Detection Limit may also be deemed to have optimized corrosion control under this paragraph if the 90th percentile tap water lead level is less than or equal to the Practical Quantitation Level for lead for two consecutive 6–month monitoring periods.

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in § 141.86(c) and collecting the samples at times and locations specified in § 141.86(d)(4)(iv). Any such system that has not conducted a round of monitoring pursuant to § 141.86(d) since September 30, 1997, shall complete a round of monitoring pursuant to this paragraph no later than September 30, 2000.

(iii) Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the State in writing pursuant to § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require any such system to conduct additional monitoring or to take other action the State deems appropriate to ensure that such systems maintain minimal levels of corrosion in the distribution system.

(iv) As of July 12, 2001, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (b)(3)(v) of this section unless it meets the copper action level.

(v) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph

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(e) of this section. Any such large system shall adhere to the schedule specified in that paragraph for medium-size systems, with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.

(c) Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to § 141.86 and submits the results to the State. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the State, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The State may require a system to repeat treatment steps previously completed by the system where the State determines that this is necessary to implement properly the treatment requirements of this section. The State shall notify the system in writing of such a determination and explain the basis for its decision. The requirement for any small- or medium-size system to implement corrosion control treatment steps in accordance with paragraph (e) of this section (including systems deemed to have optimized corrosion control under paragraph (b)(1) of this section) is triggered whenever any small- or medium-size system exceeds the lead or copper action level.

(d) Treatment steps and deadlines for large systems. Except as provided in paragraph (b)(2) and (3) of this section, large systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86, and 141.87) by the indicated dates.

(1) Step 1: The system shall conduct initial monitoring (§ 141.86(d)(1) and § 141.87(b)) during two consecutive six-month monitoring periods by January 1, 1993.

(2) Step 2: The system shall complete corrosion control studies (§ 141.82(c)) by July 1, 1994.

(3) Step 3: The State shall designate optimal corrosion control treatment (§ 141.82(d)) by January 1, 1995.

(4) Step 4: The system shall install optimal corrosion control treatment (§ 141.82(e)) by January 1, 1997.

(5) Step 5: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) by January 1, 1998.

(6) Step 6: The State shall review installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) by July 1, 1998.

(7) Step 7: The system shall operate in compliance with the State-specified optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

(e) Treatment Steps and deadlines for small and medium-size systems. Except as provided in paragraph (b) of this section, small and medium-size systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86 and 141.87) by the indicated time periods.

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(1) Step 1: The system shall conduct initial tap sampling (§ 141.86(d)(1) and § 141.87(b)) until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under § 141.86(d)(4). A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment (§ 141.82(a)) within six months after the end of the monitoring period during which it exceeds one of the action levels.

(2) Step 2: Within 12 months after the end of the monitoring period during which a system exceeds the lead or copper action level, the State may require the system to perform corrosion control studies (§ 141.82(b)). If the State does not require the system to perform such studies, the State shall specify optimal corrosion control treatment (§ 141.82(d)) within the following timeframes:

(i) For medium-size systems, within 18 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(ii) For small systems, within 24 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(3) Step 3: If the State requires a system to perform corrosion control studies under step 2, the system shall complete the studies (§ 141.82(c)) within 18 months after the State requires that such studies be conducted.

(4) Step 4: If the system has performed corrosion control studies under step 2, the State shall designate optimal corrosion control treatment (§ 141.82(d)) within 6 months after completion of step 3.

(5) Step 5: The system shall install optimal corrosion control treatment (§ 141.82(e)) within 24 months after the State designates such treatment.

(6) Step 6: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) within 36 months after the State designates optimal corrosion control treatment.

(7) Step 7: The State shall review the system's installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) within 6 months after completion of step 6.

(8) Step 8: The system shall operate in compliance with the State-designated optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

Credits

[56 FR 32113, July 15, 1991; 59 FR 33862, June 30, 1994; 65 FR 2004, Jan. 12, 2000; 72 FR 57814, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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Notes of Decisions (4)

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.82

§ 141.82 Description of corrosion control treatment requirements.

Currentness

Each system shall complete the corrosion control treatment requirements described below which are applicable to such system under § 141.81.

(a) System recommendation regarding corrosion control treatment. Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The State may require the system to conduct additional water quality parameter monitoring in accordance with § 141.87(b) to assist the State in reviewing the system's recommendation.

(b) State decision to require studies of corrosion control treatment (applicable to small and medium-size systems). The State may require any small or medium-size system that exceeds the lead or copper action level to perform corrosion control studies under paragraph (c) of this section to identify optimal corrosion control treatment for the system.

(c) Performance of corrosion control studies.

(1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

(i) Alkalinity and pH adjustment;

(ii) Calcium hardness adjustment; and

(iii) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

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(2) The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

(3) The water system shall measure the following water quality parameters in any tests conducted under this paragraph before and after evaluating the corrosion control treatments listed above:

(i) Lead;

(ii) Copper;

(iii) pH;

(iv) Alkalinity;

(v) Calcium;

(vi) Conductivity;

(vii) Orthophosphate (when an inhibitor containing a phosphate compound is used);

(viii) Silicate (when an inhibitor containing a silicate compound is used);

(ix) Water temperature.

(4) The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(i) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(ii) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) The water system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.

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(6) On the basis of an analysis of the data generated during each evaluation, the water system shall recommend to the State in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (c)(1) through (5) of this section.

(d) State designation of optimal corrosion control treatment.

(1) Based upon consideration of available information including, where applicable, studies performed under paragraph (c) of this section and a system's recommended treatment alternative, the State shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (c)(1) of this section. When designating optimal treatment the State shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.

(2) The State shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the State requests additional information to aid its review, the water system shall provide the information.

(e) Installation of optimal corrosion control. Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the State under paragraph (d) of this section.

(f) State review of treatment and specification of optimal water quality control parameters. The State shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the State in paragraph (d) of this section. Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the State shall designate:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the State determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the State determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

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(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples.

The values for the applicable water quality control parameters listed above shall be those that the State determines to reflect optimal corrosion control treatment for the system. The State may designate values for additional water quality control parameters determined by the State to reflect optimal corrosion control for the system. The State shall notify the system in writing of these determinations and explain the basis for its decisions.

(g) Continued operation and monitoring. All systems optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the State under paragraph (f) of this section, in accordance with this paragraph for all samples collected under § 141.87(d) through (f). Compliance with the requirements of this paragraph shall be determined every six months, as specified under § 141.87(d). A water system is out of compliance with the requirements of this paragraph for a six-month period if it has excursions for any State–specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the State. Daily values are calculated as follows. States have discretion to delete results of obvious sampling errors from this calculation.

(1) On days when more than one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both. If EPA has approved an alternative formula under § 142.16 of this chapter in the State's application for a program revision submitted pursuant to § 142.12 of this chapter, the State's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameter in lieu of the formula in this paragraph.

(2) On days when only one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(3) On days when no measurement is collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

(h) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the optimal corrosion control treatment under paragraph (d) of this section or optimal water quality control parameters under paragraph (f) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(i) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (d), (f), or (h) of this section

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and issue federal treatment determinations consistent with the requirements of those paragraphs where the Regional Administrator finds that:

(1) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.81,

(2) A State has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(3) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

Credits
[56 FR 32113, July 15, 1991; 65 FR 2004, Jan. 12, 2000]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Notes of Decisions (4)

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.83

§ 141.83 Source water treatment requirements.

Effective: December 10, 2007
Currentness

Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of paragraph (b) of this section, and in §§ 141.86, and 141.88) by the following deadlines.

(a) Deadlines for completing source water treatment steps—

(1) Step 1: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (§ 141.88(b)) and make a treatment recommendation to the State (§ 141.83(b)(1)) no later than 180 days after the end of the monitoring period during which the lead or copper action level was exceeded.

(2) Step 2: The State shall make a determination regarding source water treatment (§ 141.83(b)(2)) within 6 months after submission of monitoring results under step 1.

(3) Step 3: If the State requires installation of source water treatment, the system shall install the treatment (§ 141.83(b)(3)) within 24 months after completion of step 2.

(4) Step 4: The system shall complete follow-up tap water monitoring (§ 141.86(d)(2) and source water monitoring (§ 141.88(c)) within 36 months after completion of step 2.

(5) Step 5: The State shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (§ 141.83(b)(4)) within 6 months after completion of step 4.

(6) Step 6: The system shall operate in compliance with the State-specified maximum permissible lead and copper source water levels (§ 141.83(b)(4)) and continue source water monitoring (§ 141.88(d)).

(b) Description of source water treatment requirements—

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(1) System treatment recommendation. Any system which exceeds the lead or copper action level shall recommend in writing to the State the installation and operation of one of the source water treatments listed in paragraph (b)(2) of this section. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(2) State determination regarding source water treatment. The State shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the State determines that treatment is needed, the State shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following: Ion exchange, reverse osmosis, lime softening or coagulation/filtration. If the State requests additional information to aid in its review, the water system shall provide the information by the date specified by the State in its request. The State shall notify the system in writing of its determination and set forth the basis for its decision.

(3) Installation of source water treatment. Each system shall properly install and operate the source water treatment designated by the State under paragraph (b)(2) of this section.

(4) State review of source water treatment and specification of maximum permissible source water levels. The State shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the State. Based upon its review, the State shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The State shall notify the system in writing and explain the basis for its decision.

(5) Continued operation and maintenance. Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the State at each sampling point monitored in accordance with § 141.88. The system is out of compliance with this paragraph if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the State.

(6) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the source water treatment under paragraph (b)(2) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (b)(4) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(7) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (b)(2), (4), or (6) of this section and issue Federal treatment determinations consistent with the requirements of those paragraphs where the Administrator finds that:

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(i) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.83(a),

(ii) A state has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(iii) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

Credits
[56 FR 32113, July 15, 1991; 72 FR 57815, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.84

§ 141.84 Lead service line replacement requirements.

Effective: December 10, 2007
Currentness

(a) Systems that fail to meet the lead action level in tap samples taken pursuant to § 141.86(d)(2), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of § 141.81 or § 141.83 for failure to install source water or corrosion control treatment, the State may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under § 141.86(d)(2) has passed.

(b)(1) A water system shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the system, based on a materials evaluation, including the evaluation required under § 141.86(a) and relevant legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the system. The first year of lead service line replacement shall begin on the first day following the end of the monitoring period in which the action level was exceeded under paragraph (a) of this section. If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs. If the State has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.

(2) Any water system resuming a lead service line replacement program after the cessation of its lead service line replacement program as allowed by paragraph (f) of this section shall update its inventory of lead service lines to include those sites that were previously determined not to require replacement through the sampling provision under paragraph (c) of this section. The system will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that must be replaced per year (7 percent lead service line replacement is based on a 15–year replacement program, so, for example, systems resuming lead service line replacement after previously conducting two years of replacement would divide the updated inventory by 13). For those systems that have completed a 15–year lead service line replacement program, the State will determine a schedule for replacing or retesting lines that were previously tested out under the replacement program when the system re-exceeds the action level.

(c) A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L.

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(d) A water system shall replace that portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that the system will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A system is not required to bear the cost of replacing the privately-owned portion of the line, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion would be precluded by State, local or common law. A water system that does not replace the entire length of the service line also shall complete the following tasks.

(1) At least 45 days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident(s) of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The State may allow the water system to provide notice under the previous sentence less than 45 days prior to commencing partial lead service line replacement where such replacement is in conjunction with emergency repairs. In addition, the water system shall inform the resident(s) served by the line that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under § 141.86(b)(3), within 72 hours after the completion of the partial replacement of the service line. The system shall collect the sample and report the results of the analysis to the owner and the resident(s) served by the line within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results shall be considered "on time."

(2) The water system shall provide the information required by paragraph (d)(1) of this section to the residents of individual dwellings by mail or by other methods approved by the State. In instances where multi-family dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.

(e) The State shall require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where such a shorter replacement schedule is feasible. The State shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in paragraph (a) of this section.

(f) Any system may cease replacing lead service lines whenever first draw samples collected pursuant to § 141.86(b)(2) meet the lead action level during each of two consecutive monitoring periods and the system submits the results to the State. If first draw tap samples collected in any such system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines pursuant to paragraph (b)(2) of this section.

(g) To demonstrate compliance with paragraphs (a) through (d) of this section, a system shall report to the State the information specified in § 141.90(e).

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 65 FR 2005, Jan. 12, 2000; 72 FR 57815, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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Notes of Decisions (4)

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.85

§ 141.85 Public education and supplemental monitoring requirements.

Effective: December 10, 2007
Currentness

All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at sites that are tested, as specified in paragraph (d) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with § 141.86 shall deliver the public education materials contained in paragraph (a) of this section in accordance with the requirements in paragraph (b) of this section. Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c) of this section.

(a) Content of written public education materials—

(1) Community water systems and non-transient non-community water systems. Water systems must include the following elements in printed materials (e.g., brochures and pamphlets) in the same order as listed below. In addition, language in paragraphs (a)(1)(i) through (ii) and (a)(1)(vi) of this section must be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water system must include system-specific information. Any additional information presented by a water system must be consistent with the information below and be in plain language that can be understood by the general public. Water systems must submit all written public education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public materials prior to delivery.

(i) IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [INSERT NAME OF WATER SYSTEM] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

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(iii) Sources of Lead.

(A) Explain what lead is.

(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead.

(C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water.

(A) Encourage running the water to flush out the lead.

(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.

(C) Explain that boiling water does not reduce lead levels.

(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.

(E) Suggest that parents have their child's blood tested for lead.

(v) Explain why there are elevated levels of lead in the system's drinking water (if known) and what the water system is doing to reduce the lead levels in homes/buildings in this area.

(vi) For more information, call us at [INSERT YOUR NUMBER] [(IF APPLICABLE), or visit our Web site at [INSERT YOUR WEB SITE HERE]]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at http://www.epa.gov/lead or contact your health care provider.

(2) Community water systems. In addition to including the elements specified in paragraph (a)(1) of this section, community water systems must:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

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(b) Delivery of public education materials.

(1) For public water systems serving a large proportion of non–English speaking consumers, as determined by the State, the public education materials must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the public education materials or to request assistance in the appropriate language.

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with § 141.86, and that is not already conducting public education tasks under this section, must conduct the public education tasks under this section within 60 days after the end of the monitoring period in which the exceedance occurred:

(i) Deliver printed materials meeting the content requirements of paragraph (a) of this section to all bill paying customers.

(ii)(A) Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (a) of this section to local public health agencies even if they are not located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users. The water system must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver education materials that meet the content requirements of paragraph (a) of this section to all organizations on the provided lists.

(B) Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (a) of this section to the following organizations listed in 1 through 6 that are located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users:

(1) Public and private schools or school boards.

(2) Women, Infants and Children (WIC) and Head Start programs.

(3) Public and private hospitals and medical clinics.

(4) Pediatricians.

(5) Family planning clinics.

(6) Local welfare agencies.

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(C) Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements of paragraph (a) of this section to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water system's service area:

(1) Licensed childcare centers

(2) Public and private preschools.

(3) Obstetricians–Gynecologists and Midwives.

(iii) No less often than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead. The message on the water bill must include the following statement exactly as written except for the text in brackets for which the water system must include system-specific information: [INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

(iv) Post material meeting the content requirements of paragraph (a) of this section on the water system's Web site if the system serves a population greater than 100,000.

(v) Submit a press release to newspaper, television and radio stations.

(vi) In addition to paragraphs (b)(2)(i) through (v) of this section, systems must implement at least three activities from one or more categories listed below. The educational content and selection of these activities must be determined in consultation with the State.

(A) Public Service Announcements.

(B) Paid advertisements.

(C) Public Area Information Displays.

(D) E–mails to customers.

(E) Public Meetings.

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(F) Household Deliveries.

(G) Targeted Individual Customer Contact.

(H) Direct material distribution to all multi-family homes and institutions.

(I) Other methods approved by the State.

(vii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(3) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (b)(2) of this section as described in paragraphs (b)(3)(i) through (iv) of this section.

(i) A community water system shall repeat the tasks contained in paragraphs (b)(2)(i), (ii) and (vi) of this section every 12 months.

(ii) A community water system shall repeat tasks contained in paragraph (b)(2)(iii) of this section with each billing cycle.

(iii) A community water system serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site pursuant to paragraph (b)(2)(iv) of this section.

(iv) The community water system shall repeat the task in paragraph (b)(2)(v) of this section twice every 12 months on a schedule agreed upon with the State. The State can allow activities in paragraph (b)(2) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(4) Within 60 days after the end of the monitoring period in which the exceedance occurred (unless it already is repeating public education tasks pursuant to paragraph (b)(5) of this section), a non-transient non-community water system shall deliver the public education materials specified by paragraph (a) of this section as follows:

(i) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(ii) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system. The State may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

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(iii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(5) A non-transient non-community water system shall repeat the tasks contained in paragraph (b)(4) of this section at least once during each calendar year in which the system exceeds the lead action level. The State can allow activities in (b)(4) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to § 141.86. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the State, in writing (unless the State has waived the requirement for prior State approval), to use only the text specified in paragraph (a)(1) of this section in lieu of the text in paragraphs (a)(1) and (a)(2) of this section and to perform the tasks listed in paragraphs (b)(4) and (b)(5) of this section in lieu of the tasks in paragraphs (b)(2) and (b)(3) of this section if:

(i) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(ii) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:

(i) With respect to the requirements of paragraph (b)(2)(vi) of this section, a system serving 3,300 or fewer must implement at least one of the activities listed in that paragraph.

(ii) With respect to the requirements of paragraph (b)(2)(ii) of this section, a system serving 3,300 or fewer people may limit the distribution of the public education materials required under that paragraph to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(iii) With respect to the requirements of paragraph (b)(2)(v) of this section, the State may waive this requirement for systems serving 3,300 or fewer persons as long as system distributes notices to every household served by the system.

(c) Supplemental monitoring and notification of results. A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with § 141.86 shall offer to sample the tap water of any customer who requests

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it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

(d) Notification of results—

(1) Reporting requirement. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of § 141.86 to the persons served by the water system at the specific sampling site from which the sample was taken (e.g., the occupants of the residence where the tap was tested).

(2) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results.

(3) Content. The consumer notice must include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice must also provide the maximum contaminant level goal and the action level for lead and the definitions for these two terms from § 141.153(c).

(4) Delivery. The consumer notice must be provided to persons served at the tap that was tested, either by mail or by another method approved by the State. For example, upon approval by the State, a non-transient non-community water system could post the results on a bulletin board in the facility to allow users to review the information. The system must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 65 FR 2005, Jan. 12, 2000; 69 FR 38856, June 29, 2004; 72 FR 57815, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

End of Document

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40 C.F.R. § 141.86

§ 141.86 Monitoring requirements for lead and copper in tap water.

Effective: December 10, 2007
Currentness

(a) Sample site location.

(1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under § 141.42(d) of this part [special monitoring for corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to § 141.42(d) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (a) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(i) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(3) The sampling sites selected for a community water system's sampling pool ("tier l sampling sites") shall consist of single family structures that:

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(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

(4) Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(5) Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(6) The sampling sites selected for a non-transient noncommunity water system ("tier l sampling sites") shall consist of buildings that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(7) A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (a)(6) of this section shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the non-transient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(8) Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first-draw samples from all of the sites identified as being served by such lines.

(b) Sample collection methods.

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(1) All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under § 141.84(c) and samples collected under paragraph (b)(5) of this section, shall be first-draw samples.

(2) Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (b)(5) of this section shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(ii) Tapping directly into the lead service line; or

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.

(5) A non-transient non-community water system, or a community water system that meets the criteria of § 141.85(b)(7), that does not have enough taps that can supply first-draw samples, as defined in § 141.2, may apply to the State in writing to substitute non-first-draw samples. Such systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The State has the discretion to waive the requirement for prior State approval of non-first-draw sample sites selected by the system, either through State regulation or written notification to the system.

(c) Number of samples. Water systems shall collect at least one sample during each monitoring period specified in paragraph (d) of this section from the number of sites listed in the first column ("standard monitoring") of the table in

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this paragraph. A system conducting reduced monitoring under paragraph (d)(4) of this section shall collect at least one sample from the number of sites specified in the second column ("reduced monitoring") of the table in this paragraph during each monitoring period specified in paragraph (d)(4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. A public water system that has fewer than five drinking water taps, that can be used for human consumption meeting the sample site criteria of paragraph (a) of this section to reach the required number of sample sites listed in paragraph (c) of this section, must collect at least one sample from each tap and then must collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively the State may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph (c) of this section, provided that 100 percent of all taps that can be used for human consumption are sampled. The State must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the State. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System size (number of people served)	Number of sites (standard monitoring)	Number of sites (reduced monitoring)
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
≤100	5	5

(d) Timing of monitoring—

(1) Initial tap sampling.

The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System size (No. people served)	First six-month monitoring period begins on
>50,000	January 1, 1992.
3,301 to 50,000	July 1, 1992.
≤3,300	July 1, 1993.

(i) All large systems shall monitor during two consecutive six-month periods.

(ii) All small and medium-size systems shall monitor during each six-month monitoring period until:

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(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under § 141.81, in which case the system shall continue monitoring in accordance with paragraph (d)(2) of this section, or

(B) The system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (d)(4) of this section.

(2) Monitoring after installation of corrosion control and source water treatment.

(i) Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(d)(5).

(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to § 141.81(e)(5) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(e)(6).

(iii) Any system which installs source water treatment pursuant to § 141.83(a)(3) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.83(a)(4).

(3) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for water quality control parameters under § 141.82(f), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the State specifies the optimal values under § 141.82(f).

(4) Reduced monitoring.

(i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (c) of this section, and reduce the frequency of sampling to once per year. A small or medium water system collecting fewer than five samples as specified in paragraph (c) of this section, that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the system reduce the number of samples required below the minimum of one sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(ii) Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with paragraph (c) of this section if it receives written approval from the State. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to commence reduced monitoring pursuant to this paragraph. The State shall

review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three years if it receives written approval from the State. Samples collected once every three years shall be collected no later than every third calendar year. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in paragraph (a) of this section. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September unless the State has approved a different sampling period in accordance with paragraph (d)(4)(iv)(A) of this section.

(A) The State, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a non-transient non-community water system that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the State shall designate a period that represents a time of normal operation for the system. This sampling shall begin during the period approved or designated by the State in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.

(B) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive State approval to alter the sampling collection period as per paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small systems with waivers, granted pursuant to paragraph (g) of this section, that have been collecting samples during the months of June through September and receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section must collect their next round of samples before the end of the 9–year period.

(v) Any water system that demonstrates for two consecutive 6–month monitoring periods that the tap water lead level computed under § 141.80(c)(3) is less than or equal to 0.005 mg/L and the tap water copper level computed under

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§ 141.80(c)(3) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with paragraph (c) of this section and reduce the frequency of sampling to once every three calendar years.

(vi)(A) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section. Such a system shall also conduct water quality parameter monitoring in accordance with § 141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(i) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section.

(B) Any water system subject to the reduced monitoring frequency that fails to meet the lead action level during any four-month monitoring period or that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State under § 141.82(f) for more than nine days in any six-month period specified in § 141.87(d) shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (d)(3) of this section, collect the number of samples specified for standard monitoring under paragraph (c) of this section, and shall resume monitoring for water quality parameters within the distribution system in accordance with § 141.87(d). This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion. Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(1) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(ii) of this section and the system has received written approval from the State that it is appropriate to resume reduced monitoring on an annual frequency. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(2) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section and the system has received written approval from the State that it is appropriate to resume triennial monitoring.

(3) The system may reduce the number of water quality parameter tap water samples required in accordance with § 141.87(e)(1) and the frequency with which it collects such samples in accordance with § 141.87(e)(2). Such a system may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of § 141.87(e)(2), that it has re-qualified for triennial monitoring.

(vii) Any water system subject to a reduced monitoring frequency under paragraph (d)(4) of this section shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of

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a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require the system to resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this subpart.

(f) Invalidation of lead or copper tap water samples. A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under § 141.80(c)(3) or toward meeting the minimum monitoring requirements of paragraph (c) of this section.

(1) The State may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The State determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the State and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under paragraph (f)(1) of this section, the decision and the rationale for the decision must be documented in writing. States may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (c) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

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(g) Monitoring waivers for small systems. Any small system that meets the criteria of this paragraph may apply to the State to reduce the frequency of monitoring for lead and copper under this section to once every nine years (i.e., a "full waiver") if it meets all of the materials criteria specified in paragraph (g)(1) of this section and all of the monitoring criteria specified in paragraph (g)(2) of this section. If State regulations permit, any small system that meets the criteria in paragraphs (g)(1) and (2) of this section only for lead, or only for copper, may apply to the State for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (i.e., a "partial waiver").

(1) Materials criteria. The system must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing materials and/or copper-containing materials, as those terms are defined in this paragraph, as follows:

(i) Lead. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (i.e., a "lead waiver"), the water system must provide certification and supporting documentation to the State that the system is free of all lead-containing materials, as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; and

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to 42 U.S.C. 300g–6(e) (SDWA section 1417(e)).

(ii) Copper. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (i.e., a "copper waiver"), the water system must provide certification and supporting documentation to the State that the system contains no copper pipes or copper service lines.

(2) Monitoring criteria for waiver issuance. The system must have completed at least one 6–month round of standard tap water monitoring for lead and copper at sites approved by the State and from the number of sites required by paragraph (c) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

(i) Lead levels. To qualify for a full waiver, or a lead waiver, the system must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) Copper levels. To qualify for a full waiver, or a copper waiver, the system must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) State approval of waiver application. The State shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the State may require the system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind

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them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small system must continue monitoring for lead and copper at the tap as required by paragraphs (d)(1) through (d)(4) of this section, as appropriate, until it receives written notification from the State that the waiver has been approved.

(4) Monitoring frequency for systems with waivers.

(i) A system with a full waiver must conduct tap water monitoring for lead and copper in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites identified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section for both lead and copper to the State along with the monitoring results. Samples collected every nine years shall be collected no later than every ninth calendar year.

(ii) A system with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites specified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a system also must continue to monitor for the non-waived contaminant in accordance with requirements of paragraph (d)(1) through (d)(4) of this section, as appropriate.

(iii) Any water system with a full or partial waiver shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source, as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State has the authority to require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the system.

(iv) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the system shall notify the State in writing no later than 60 days after becoming aware of such a change.

(5) Continued eligibility. If the system continues to satisfy the requirements of paragraph (g)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (g)(5)(i) through (g)(5)(iii) of this section occurs. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of paragraphs (g)(1) and (g)(2) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (g)(1)(i) of this section or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of paragraph (g)(1)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

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(iii) The State notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) Requirements following waiver revocation. A system whose full or partial waiver has been revoked by the State is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:

(i) If the system exceeds the lead and/or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in § 141.81(e), and any other applicable requirements of this subpart.

(ii) If the system meets both the lead and the copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in paragraph (c) of this section.

(7) Pre–existing waivers. Small system waivers approved by the State in writing prior to April 11, 2000 shall remain in effect under the following conditions:

(i) If the system has demonstrated that it is both free of lead-containing and copper-containing materials, as required by paragraph (g)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (g)(2) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the last time the system has monitored for lead and copper at the tap.

(ii) If the system has met the materials criteria of paragraph (g)(1) of this section but has not met the monitoring criteria of paragraph (g)(2) of this section, the system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of paragraph (g)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the system meets the continued eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to paragraph (g)(2) of this section.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 65 FR 2007, Jan. 12, 2000; 72 FR 57817, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.87

§ 141.87 Monitoring requirements for water quality parameters.

Effective: December 10, 2007
Currentness

All large water systems, and all small- and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

(a) General requirements—

(1) Sample collection methods.

(i) Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under § 141.86(a). [Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under 40 CFR 141.21.]

(ii) Samples collected at the entry point(s) to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(2) Number of samples.

(i) Systems shall collect two tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (b) through (e) of this section from the following number of sites.

System size (No. people served)	No. of sites for water quality parameters
>100,000	25
10,001-100,000	10

3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(ii) Except as provided in paragraph (c)(3) of this section, systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (b) of this section. During each monitoring period specified in paragraphs (c)–(e) of this section, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

(b) Initial sampling. All large water systems shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month monitoring period specified in § 141.86(d)(1). All small and medium-size systems shall measure the applicable water quality parameters at the locations specified below during each six-month monitoring period specified in § 141.86(d)(1) during which the system exceeds the lead or copper action level.

(1) At taps:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium;

(vi) Conductivity; and

(vii) Water temperature.

(2) At each entry point to the distribution system: all of the applicable parameters listed in paragraph (b)(1) of this section.

(c) Monitoring after installation of corrosion control. Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in § 141.86(d)(2)(i). Any small or medium-size system which

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installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in § 141.86(d)(2)(ii) in which the system exceeds the lead or copper action level.

(1) At taps, two samples for:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) Except as provided in paragraph (c)(3) of this section, at each entry point to the distribution system, at least one sample no less frequently than every two weeks (biweekly) for:

(i) pH;

(ii) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(iii) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

(3) Any ground water system can limit entry point sampling described in paragraph (c)(2) of this section to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this paragraph, the system shall provide to the State written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(d) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under § 141.82(f), all large systems shall measure the applicable water quality parameters in accordance with paragraph (c) of this section and determine compliance with the requirements of § 141.82(g) every six months with the first six-month period to begin on either January 1 or July 1, whichever comes first, after the State specifies the optimal values under § 141.82(f). Any small or medium-size system shall conduct such monitoring during each six-month period specified in this

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paragraph in which the system exceeds the lead or copper action level. For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to § 141.86(d)(4) at the time of the action level exceedance, the start of the applicable six-month monitoring period under this paragraph shall coincide with the start of the applicable monitoring period under § 141.86(d)(4). Compliance with State-designated optimal water quality parameter values shall be determined as specified under § 141.82(g).

(e) Reduced monitoring.

(1) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under paragraph (d) of this section shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph (c)(2) of this section. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System size (No. of people served)	Reduced No. of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(2)(i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in this paragraph (e)(1) of this section from every six months to annually. This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurs. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f), during three consecutive years of annual monitoring under this paragraph may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section from annually to every three years. This sampling begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section to every three years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead specified in § 141.89 (a)(1)(ii), that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L for copper in § 141.80(c)(2), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f). Monitoring conducted every three years shall be done no later than every third calendar year.

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(3) A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Any water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State in § 141.82(f) for more than nine days in any six-month period specified in § 141.82(g) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (d) of this section. Such a system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (e)(1) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that paragraph and/or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (e)(2)(i) or (e)(2)(ii) of this section.

(f) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., determining concentrations of water quality parameters) under this section or § 141.82.

Summary of Monitoring Requirements for Water Quality Parameters [1]

Monitoring period	Parameters [2]	Location	Frequency
Initial monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium, conductivity, temperature	Taps and at entry point(s) to distribution system.....	Every 6 months.
After installation of corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity, dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

After State specifies parameter values for optimal corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.
Reduced monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months, annually [7] or every 3 years [8]; reduced number of sites.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 59 FR 33862, June 30, 1994; 65 FR 2010, Jan. 12, 2000; 72 FR 57818, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

Footnotes

1 Table is for illustrative purposes; consult the text of this section for precise regulatory requirements.

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2 Small and medium-size systems have to monitor for water quality parameters only during monitoring periods in which the system exceeds the lead or copper action level.

3 Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing silicate compound is used.

4 Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

5 Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

6 Ground water systems may limit monitoring to representative locations throughout the system.

7 Water systems may reduce frequency of monitoring for water quality parameters at the tap from every six months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

8 Water systems may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. Water systems may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained 90th percentile lead levels less than or equal to 0.005 mg/L, 90th percentile copper levels less than or equal to 0.65 mg/L, and the range of water quality parameters designated by the State under § 141.82(f) as representing optimal corrosion control during two consecutive six-month monitoring periods.

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40 C.F.R. § 141.88

§ 141.88 Monitoring requirements for lead and copper in source water.

Effective: December 10, 2007
Currentness

(a) Sample location, collection methods, and number of samples.

(1) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with § 141.86 shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

(i) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(ii) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

Note to paragraph (a)(1)(ii): For the purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

(iii) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(iv) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples must be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 mg/L or the copper concentration is greater than or equal to 0.160 mg/L, then either:

(A) A follow-up sample shall be taken and analyzed within 14 days at each sampling point included in the composite; or

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(B) If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the system may use these instead of resampling.

(2) Where the results of sampling indicate an exceedance of maximum permissible source water levels established under § 141.83(b)(4), the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a State-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the State-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered one-half the PQL.

(b) Monitoring frequency after system exceeds tap water action level. Any system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system no later than six months after the end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.

(c) Monitoring frequency after installation of source water treatment. Any system which installs source water treatment pursuant to § 141.83(a)(3) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in § 141.83(a)(4).

(d) Monitoring frequency after State specifies maximum permissible source water levels or determines that source water treatment is not needed.

(1) A system shall monitor at the frequency specified below in cases where the State specifies maximum permissible source water levels under § 141.83(b)(4) or determines that the system is not required to install source water treatment under § 141.83(b)(2).

(i) A water system using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in § 141.2) in effect when the applicable State determination under paragraph (d)(1) of this section is made. Such systems shall collect samples once during each subsequent compliance period. Triennial samples shall be collected every third calendar year.

(ii) A water system using surface water (or a combination of surface and ground water) shall collect samples once during each calendar year, the first annual monitoring period to begin during the year in which the applicable State determination is made under paragraph (d)(1) of this section.

(2) A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph (d)(1) (i) or (ii) of this section.

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(e) Reduced monitoring frequency.

(1) A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) during at least three consecutive compliance periods under paragraph (d)(1) of this section; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive compliance periods in which sampling was conducted under paragraph (d)(1) of this section, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(2) A water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in paragraph (d)(1) of this section to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) for at least three consecutive years; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(3) A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the State in § 141.83(a)(5).

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, 28789, June 29, 1992; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.89

§ 141.89 Analytical methods.

Effective: December 10, 2007
Currentness

(a) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted with the methods in § 141.23(k)(1).

(1) Analyses for alkalinity, calcium, conductivity, orthophosphate, pH, silica, and temperature may be performed by any person acceptable to the State. Analyses under this section for lead and copper shall only be conducted by laboratories that have been certified by EPA or the State. To obtain certification to conduct analyses for lead and copper, laboratories must:

(i) Analyze Performance Evaluation samples, which include lead and copper, provided by or acceptable to EPA or the State at least once a year by each method for which the laboratory desires certification; and

(ii) Achieve quantitative acceptance limits as follows:

(A) For lead: ±30 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.005 mg/L. The Practical Quantitation Level, or PQL for lead is 0.005 mg/L.

(B) For Copper: ±10 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.050 mg/L. The Practical Quantitation Level, or PQL for copper is 0.050 mg/L.

(iii) Achieve the method detection limit for lead of 0.001 mg/L according to the procedures in appendix B of part 136 of this title. This need only be accomplished if the laboratory will be processing source water composite samples under § 141.88(a)(1)(iv).

(iv) Be currently certified by EPA or the State to perform analyses to the specifications described in paragraph (a)(1) of this section.

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(2) States have the authority to allow the use of previously collected monitoring data for purposes of monitoring, if the data were collected and analyzed in accordance with the requirements of this subpart.

(3) All lead and copper levels measured between the PQL and MDL must be either reported as measured or they can be reported as one-half the PQL specified for lead and copper in paragraph (a)(1)(ii) of this section. All levels below the lead and copper MDLs must be reported as zero.

(4) All copper levels measured between the PQL and the MDL must be either reported as measured or they can be reported as one-half the PQL (0.025 mg/L). All levels below the copper MDL must be reported as zero.

(b) [Reserved]

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 57 FR 31847, July 17, 1992; 59 FR 33863, June 30, 1994; 59 FR 62470, Dec. 5, 1994; 63 FR 47113, Sept. 3, 1998; 63 FR 72200, Dec. 31, 1998; 64 FR 67466, Dec. 1, 1999; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.90

§ 141.90 Reporting requirements.

Effective: December 10, 2007
Currentness

All water systems shall report all of the following information to the State in accordance with this section.

(a) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.

(1) Except as provided in paragraph (a)(1)(viii) of this section, a water system shall report the information specified below for all tap water samples specified in § 141.86 and for all water quality parameter samples specified in § 141.87 within the first 10 days following the end of each applicable monitoring period specified in § 141.86 and § 141.87 (i.e., every six months, annually, every 3 years, or every 9 years). For monitoring periods with a duration less than six months, the end of the monitoring period is the last date samples can be collected during that period as specified in §§ 141.86 and 141.87.

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool;

(ii) Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to § 141.86(f)(2);

(iii) [Reserved]

(iv) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with § 141.80(c)(3)), unless the State calculates the system's 90th percentile lead and copper levels under paragraph (h) of this section;

(v) With the exception of initial tap sampling conducted pursuant to § 141.86(d)(1), the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

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(vi) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under § 141.87(b)–(e);

(vii) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under § 141.87(b)–(e);

(viii) A water system shall report the results of all water quality parameter samples collected under § 141.87(c) through (f) during each six-month monitoring period specified in § 141.87(d) within the first 10 days following the end of the monitoring period unless the State has specified a more frequent reporting requirement.

(2) For a non-transient non-community water system, or a community water system meeting the criteria of § 141.85(b)(7), that does not have enough taps that can provide first-draw samples, the system must either:

(i) Provide written documentation to the State identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under § 141.86(b)(5) by the start of the first applicable monitoring period under § 141.86(d) that commences after April 11, 2000, unless the State has waived prior State approval of non-first-draw sample sites selected by the system pursuant to § 141.86(b)(5); or

(ii) If the State has waived prior approval of non-first-draw sample sites selected by the system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to § 141.86(b)(5) and include this information with the lead and copper tap sample results required to be submitted pursuant to paragraph (a)(1)(i) of this section.

(3) At a time specified by the State, or if no specific time is designated by the State, then as early as possible prior to the addition of a new source or any long-term change in water treatment, a water system deemed to have optimized corrosion control under § 141.81(b)(3), a water system subject to reduced monitoring pursuant to § 141.86(d)(4), or a water system subject to a monitoring waiver pursuant to § 141.86(g), shall submit written documentation to the State describing the change or addition. The State must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants (e.g., alum to ferric chloride), and switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate). Long-term changes can include dose changes to existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.

(4) Any small system applying for a monitoring waiver under § 141.86(g), or subject to a waiver granted pursuant to § 141.86(g)(3), shall provide the following information to the State in writing by the specified deadline:

(i) By the start of the first applicable monitoring period in § 141.86(d), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of §§ 141.86(g)(1) and (2).

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(ii) No later than nine years after the monitoring previously conducted pursuant to § 141.86(g)(2) or § 141.86(g)(4)(i), each small system desiring to maintain its monitoring waiver shall provide the information required by §§ 141.86(g)(4)(i) and (ii).

(iii) No later than 60 days after it becomes aware that it is no longer free of lead-containing and/or copper-containing material, as appropriate, each small system with a monitoring waiver shall provide written notification to the State, setting forth the circumstances resulting in the lead-containing and/or copper-containing materials being introduced into the system and what corrective action, if any, the system plans to remove these materials.

(iv) By October 10, 2000, any small system with a waiver granted prior to April 11, 2000 and that has not previously met the requirements of § 141.86(g)(2) shall provide the information required by that paragraph.

(5) Each ground water system that limits water quality parameter monitoring to a subset of entry points under § 141.87(c)(3) shall provide, by the commencement of such monitoring, written correspondence to the State that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(b) Source water monitoring reporting requirements.

(1) A water system shall report the sampling results for all source water samples collected in accordance with § 141.88 within the first 10 days following the end of each source water monitoring period (i.e., annually, per compliance period, per compliance cycle) specified in § 141.88.

(2) With the exception of the first round of source water sampling conducted pursuant to § 141.88(b), the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(c) Corrosion control treatment reporting requirements. By the applicable dates under § 141.81, systems shall report the following information:

(1) For systems demonstrating that they have already optimized corrosion control, information required in § 141.81(b) (2) or (3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under § 141.82(a).

(3) For systems required to evaluate the effectiveness of corrosion control treatments under § 141.82(c), the information required by that paragraph.

(4) For systems required to install optimal corrosion control designated by the State under § 141.82(d), a letter certifying that the system has completed installing that treatment.

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(d) Source water treatment reporting requirements. By the applicable dates in § 141.83, systems shall provide the following information to the State:

(1) If required under § 141.83(b)(1), their recommendation regarding source water treatment;

(2) For systems required to install source water treatment under § 141.83(b)(2), a letter certifying that the system has completed installing the treatment designated by the State within 24 months after the State designated the treatment.

(e) Lead service line replacement reporting requirements. Systems shall report the following information to the State to demonstrate compliance with the requirements of § 141.84:

(1) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), the system must submit written documentation to the State of the material evaluation conducted as required in § 141.86(a), identify the initial number of lead service lines in its distribution system at the time the system exceeds the lead action level, and provide the system's schedule for annually replacing at least 7 percent of the initial number of lead service lines in its distribution system.

(2) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), and every 12 months thereafter, the system shall demonstrate to the State in writing that the system has either:

(i) Replaced in the previous 12 months at least 7 percent of the initial lead service lines (or a greater number of lines specified by the State under § 141.84(e)) in its distribution system, or

(ii) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in § 141.84(c) shall equal at least 7 percent of the initial number of lead lines identified under paragraph (e)(1) of this section (or the percentage specified by the State under § 141.84(e)).

(3) The annual letter submitted to the State under paragraph (e)(2) of this section shall contain the following information:

(i) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(ii) The number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(iii) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

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(4) Any system which collects lead service line samples following partial lead service line replacement required by § 141.84 shall report the results to the State within the first ten days of the month following the month in which the system receives the laboratory results, or as specified by the State. States, at their discretion may eliminate this requirement to report these monitoring results. Systems shall also report any additional information as specified by the State, and in a time and manner prescribed by the State, to verify that all partial lead service line replacement activities have taken place.

(f) Public education program reporting requirements.

(1) Any water system that is subject to the public education requirements in § 141.85 shall, within ten days after the end of each period in which the system is required to perform public education in accordance with § 141.85(b), send written documentation to the State that contains:

(i) A demonstration that the system has delivered the public education materials that meet the content requirements in § 141.85(a) and the delivery requirements in § 141.85(b); and

(ii) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the system delivered public education materials during the period in which the system was required to perform public education tasks.

(2) Unless required by the State, a system that previously has submitted the information required by paragraph (f)(1)(ii) of this section need not resubmit the information required by paragraph (f)(1)(ii) of this section, as long as there have been no changes in the distribution list and the system certifies that the public education materials were distributed to the same list submitted previously.

(3) No later than 3 months following the end of the monitoring period, each system must mail a sample copy of the consumer notification of tap results to the State along with a certification that the notification has been distributed in a manner consistent with the requirements of § 141.85(d).

(g) Reporting of additional monitoring data. Any system which collects sampling data in addition to that required by this subpart shall report the results to the State within the first ten days following the end of the applicable monitoring period under §§ 141.86, 141.87 and 141.88 during which the samples are collected.

(h) Reporting of 90th percentile lead and copper concentrations where the State calculates a system's 90th percentile concentrations. A water system is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by paragraph (a)(1)(iv) of this section if:

(1) The State has previously notified the water system that it will calculate the water system's 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to paragraph (h)(2)(i) of

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this section, and has specified a date before the end of the applicable monitoring period by which the system must provide the results of lead and copper tap water samples;

(2) The system has provided the following information to the State by the date specified in paragraph (h)(1) of this section:

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool, pursuant to paragraph (a)(1)(i) of this section; and

(ii) An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed; and

(3) The State has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 59 FR 33864, June 30, 1994; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.91

§ 141.91 Recordkeeping requirements.

Currentness

Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by §§ 141.81 through 141.88. Each water system shall retain the records required by this section for no fewer than 12 years.

Credits
[56 FR 32113, July 15, 1991]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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West's Ann.Cal.Health & Safety Code § 116270

§ 116270. Legislative findings and declarations

Effective: January 1, 2016
Currentness

The Legislature finds and declares all of the following:

(a) Every resident of California has the right to pure and safe drinking water.

(b) Feasible and affordable technologies are available and shall be used to remove toxic contaminants from public water supplies.

(c) According to the State Department of Health Services, over 95 percent of all large public water systems in California are in compliance with health-based action levels established by the department for various contaminants.

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

(e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.

(f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.

(g) It is the further intent of the Legislature to establish a drinking water regulatory program within the state board to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.

(h) This act shall be construed to ensure consistency with the requirements for states to obtain and maintain primary enforcement responsibility for public water systems under the federal Safe Drinking Water Act and acts amendatory thereof or supplementary thereto.

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Credits

(Formerly § 116300, added by Stats.1995, c. 415, (S.B.1360) § 6. Amended by Stats.1996, c. 755 (S.B.1307), § 3. Renumbered § 116270 and amended by Stats.1997, c. 734 (S.B.1307), § 6, eff. Oct. 7, 1997. Amended by Stats.2015, c. 673 (A.B.1531), § 3, eff. Jan. 1, 2016.)

West's Ann. Cal. Health & Safety Code § 116270, CA HLTH & S § 116270
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116271

§ 116271. State Water Resources Control Board; transfer of authority, powers and duties from predecessor agencies and departments; continuing duties

Effective: January 1, 2018
Currentness

(a) The state board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:

(1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).

(2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.

(3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.

(4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).

(5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.

(6) Chapter 7 (commencing with Section 116975).

(7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).

(8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).

(9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.

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(10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).

(11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).

(12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).

(b) The state board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to “department,” “state department,” or “director” regarding a function transferred to the state board shall refer to the state board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500.

(c) The state board shall succeed to the status of grantee or applicant, as appropriate, for any federal Drinking Water State Revolving Fund capitalization grants that the State Department of Public Health and any of its predecessors applied for.

(d) Regulations adopted, orders issued, and all other administrative actions taken by the State Department of Public Health, any of its predecessors, or its director, pursuant to the authorities now vested in the state board and in effect immediately preceding the operative date of this section shall remain in effect and are fully enforceable unless and until readopted, amended, or repealed, or until they expire by their own terms. Regulations in the process of adoption pursuant to the authorities vested in the state board shall continue under the authority of the state board unless and until the state board determines otherwise. Any other administrative action adopted, prescribed, taken, or performed by, or on behalf of, the State Department of Public Health, or its director, in the administration of a program or the performance of a duty, responsibility, or authorization transferred to the state board shall remain in effect and shall be deemed to be an action of the state board unless and until the state board determines otherwise.

(e) Permits, licenses, accreditations, certificates, and other formal approvals and authorizations issued by the State Department of Public Health, any of its predecessors, or its director pursuant to authorities vested in the state board pursuant to this section are not affected by the transfer and remain in effect, subject to all applicable laws and regulations, unless and until renewed, reissued, revised, amended, suspended, or revoked by the state board or its deputy director, as authorized pursuant to subdivision (k).

(f) Any action or proceeding by or against the State Department of Public Health, including any officer or employee of the State Department of Public Health named in an official capacity, or any of its predecessors, pertaining to matters vested in the state board by this section shall not abate, but shall continue in the name of the state board. The state board shall be substituted for the State Department of Public Health, including any officer or employee of the State Department of Public Health named in an official capacity, and any of its predecessors, by the court or agency where the action or proceeding is pending. The substitution shall not in any way affect the rights of the parties to the action or proceeding.

(g) On and after the operative date of this section, the unexpended balance of all funds available for use by the State Department of Public Health or any of its predecessors in carrying out any functions transferred to the state board are available for use by the state board.

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(h) Books, documents, data, records, and property of the State Department of Public Health pertaining to functions transferred to the state board shall be transferred to the state board. This subdivision does not transfer any part of property commonly known as the Richmond Campus that is owned by the State Public Works Board.

(i) A contract, lease, license, or any other agreement, including local primacy agreements, as described in Section 116330, to which the State Department of Public Health, any of its predecessors, its director, or their agents, is a party, are not void or voidable by reason of this section, but shall continue in full force and effect, with the state board assuming all of the rights, obligations, liabilities, and duties of the State Department of Public Health and any of its predecessors as it relates to the duties, powers, purposes, responsibilities, and jurisdiction vested in the state board pursuant to this section. This assumption does not affect the rights of the parties to the contract, lease, license, or agreement.

(j) If the Department of Water Resources entered into agreements on behalf of the State Department of Public Health or its predecessor, the State Department of Health Services, pursuant to Chapter 4.5 (commencing with Section 116760), the state board shall also succeed the Department of Water Resources as a party to those agreements and to all related security instruments, including, but not limited to, fiscal services agreements, deeds of trust, guarantees, letters of credit, and deposit control agreements.

(k)(1) The state board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.

(2) The deputy director is delegated the state board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken by the state board, but are not subject to reconsideration by the state board except as provided in Section 116540. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the state board, but any aggrieved person may petition the state board for reconsideration of the decision or action. This subdivision is not a limitation on the state board's authority to delegate any other powers and duties.

(3) The state board shall not delegate any authority, duty, power, purpose, function, or responsibility specified in this section, including, but not limited to, issuance and enforcement of public water system permits, to the regional water quality control boards.

Credits

(Added by Stats.2014, c. 35 (S.B.861), § 63, eff. June 20, 2014, operative July 1, 2014. Amended by Stats.2017, c. 327 (A.B.1438), § 26, eff. Jan. 1, 2018.)

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West's Ann. Cal. Health & Safety Code § 116271, CA HLTH & S § 116271
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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KeyCite Yellow Flag - Negative Treatment
Proposed Legislation

West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116275

§ 116275. Definitions

Effective: January 1, 2017
Currentness

As used in this chapter:

(a) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(b) "Department" means the state board.

(c) "Primary drinking water standards" means:

(1) Maximum levels of contaminants that, in the judgment of the state board, may have an adverse effect on the health of persons.

(2) Specific treatment techniques adopted by the state board in lieu of maximum contaminant levels pursuant to subdivision (j) of Section 116365.

(3) The monitoring and reporting requirements as specified in regulations adopted by the state board that pertain to maximum contaminant levels.

(d) "Secondary drinking water standards" means standards that specify maximum contaminant levels that, in the judgment of the state board, are necessary to protect the public welfare. Secondary drinking water standards may apply to any contaminant in drinking water that may adversely affect the odor or appearance of the water and may cause a substantial number of persons served by the public water system to discontinue its use, or that may otherwise adversely affect the public welfare. Regulations establishing secondary drinking water standards may vary according to geographic and other circumstances and may apply to any contaminant in drinking water that adversely affects the taste, odor, or appearance of the water when the standards are necessary to ensure a supply of pure, wholesome, and potable water.

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(e) "Human consumption" means the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes.

(f) "Maximum contaminant level" means the maximum permissible level of a contaminant in water.

(g) "Person" means an individual, corporation, company, association, partnership, limited liability company, municipality, public utility, or other public body or institution.

(h) "Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

(1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.

(2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.

(3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(i) "Community water system" means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

(j) "Noncommunity water system" means a public water system that is not a community water system.

(k) "Nontransient noncommunity water system" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

(*l*) "Local health officer" means a local health officer appointed pursuant to Section 101000 or a local comprehensive health agency designated by the board of supervisors pursuant to Section 101275 to carry out the drinking water program.

(m) "Significant rise in the bacterial count of water" means a rise in the bacterial count of water that the state board determines, by regulation, represents an immediate danger to the health of water users.

(n) "State small water system" means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

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(*o*) "Transient noncommunity water system" means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

(p) "User" means a person using water for domestic purposes. User does not include a person processing, selling, or serving water or operating a public water system.

(q) "Waterworks standards" means regulations adopted by the state board entitled "California Waterworks Standards" (Chapter 16 (commencing with Section 64551) of Division 4 of Title 22 of the California Code of Regulations).

(r) "Local primacy agency" means a local health officer that has applied for and received primacy delegation pursuant to Section 116330.

(s) "Service connection" means the point of connection between the customer's piping or constructed conveyance, and the water system's meter, service pipe, or constructed conveyance. A connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection in determining if the system is a public water system if any of the following apply:

(1) The water is used exclusively for purposes other than residential uses, consisting of drinking, bathing, and cooking, or other similar uses.

(2) The state board determines that alternative water to achieve the equivalent level of public health protection provided by the applicable primary drinking water regulation is provided for residential or similar uses for drinking and cooking.

(3) The state board determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a passthrough entity, or the user to achieve the equivalent level of protection provided by the applicable primary drinking water regulations.

(t) "Resident" means a person who physically occupies, whether by ownership, rental, lease, or other means, the same dwelling for at least 60 days of the year.

(u) "Water treatment operator" means a person who has met the requirements for a specific water treatment operator grade pursuant to Section 106875.

(v) "Water distribution operator" means a person who has met the requirements for a specific water distribution operator grade pursuant to Section 106875.

(w) "Water treatment plant" means a group or assemblage of structures, equipment, and processes that treats, blends, or conditions the water supply of a public water system.

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(x) "Water distribution system" means any combination of pipes, tanks, pumps, and other physical features that deliver water from the source or water treatment plant to the consumer.

(y) "Public health goal" means a goal established by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365.

(z) "Small community water system" means a community water system that serves no more than 3,300 service connections or a yearlong population of no more than 10,000 persons.

(aa) "Disadvantaged community" means the entire service area of a community water system, or a community therein, in which the median household income is less than 80 percent of the statewide average.

(ab) "State board" means the State Water Resources Control Board.

(ac) "Deputy director" means the deputy director appointed by the state board pursuant to subdivision (k) of Section 116271.

Credits

(Formerly § 4010.1, added by Stats.1976, c. 1087, p. 4908, § 2. Amended by Stats.1989, c. 823, § 5; Stats.1990, c. 1182 (A.B.2158), § 1; Stats.1992, c. 1248 (A.B.2995), § 1; Stats.1994, c. 1010 (S.B.2053), § 156; Stats.1995, c. 673 (S.B.1172), § 1. Renumbered § 116275 and amended by Stats.1996, c. 1023 (S.B.1497), § 182, eff. Sept. 29, 1996; Stats.1996, c. 874 (S.B.1851), § 3; Stats.1996, c. 875 (A.B.2727), § 3. Amended by Stats.1997, c. 734 (S.B.1307), § 1, eff. Oct. 7, 1997; Stats.1999, c. 755 (S.B.1107), § 14; Stats.2002, c. 425 (S.B.1822), § 1; Stats.2007, c. 614 (A.B.783), § 1; Stats.2011, c. 516 (A.B.1194), § 1; Stats.2015, c. 24 (S.B.83), § 17, eff. June 24, 2015; Stats.2015, c. 673 (A.B.1531), § 4, eff. Jan. 1, 2016; Stats.2016, c. 305 (A.B.2890), § 17, eff. Jan. 1, 2017.)

West's Ann. Cal. Health & Safety Code § 116275, CA HLTH & S § 116275
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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KeyCite Red Flag - Severe Negative Treatment
Enacted LegislationAmended by 2018 Cal. Legis. Serv. Ch. 92 (S.B. 1289) (WEST),

West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116277

§ 116277. Testing for lead in potable water system at schoolsite; lead levels; sampling plan; exceptions

Effective: January 1, 2018
Currentness

(a)(1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.

(2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.

(3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b)(1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c)(1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

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(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) “Local educational agency” means a school district, county office of education, or charter school located in a public facility.

(2) “Potable water system” means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.

Credits
(Added by Stats.2017, c. 746 (A.B.746), § 1, eff. Jan. 1, 2018.)

West's Ann. Cal. Health & Safety Code § 116277, CA HLTH & S § 116277
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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 2. Department and Local Responsibilities (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116330

§ 116330. Local administration and enforcement; retained authority; application for local administration and enforcement; agreements; duration of delegation; evaluation of local drinking water programs; funding

Currentness

(a) The department may delegate primary responsibility for the administration and enforcement of this chapter within a county to a local health officer authorized by the board of supervisors to assume these duties, by means of a local primacy delegation agreement if the local health officer demonstrates that it has the capability to meet the local primacy program requirements established by the department pursuant to subdivision (h) of Section 116375. This delegation shall not include the regulation of community water systems serving 200 or more service connections. The local primacy agreement may contain terms and conditions that the department deems necessary to carry out this chapter. The local primacy agreement shall provide that, although the local primacy agency shall be primarily responsible for administration and enforcement of this chapter for the designated water systems, the department does not thereby relinquish its authority, but rather shall retain jurisdiction to administer and enforce this chapter for the designated water systems to the extent determined necessary by the department.

(b) Any local health officer seeking a local primacy delegation shall submit an application to the department. The application shall be submitted by March 1, 1993, for local health officers seeking local primacy agreements for the 1993-94 fiscal year. Thereafter, the application shall be submitted by January 1, of the fiscal year immediately preceding the commencement of the fiscal year for which the local primacy delegation is sought. The application shall be in the format, and shall contain information, required by the department. The department shall approve the application for primacy if the department determines that the local health officer is capable of meeting the primacy program requirements established by the department.

(c) A local primacy delegation approved by the department shall remain in effect until any of the following conditions occur:

(1) The delegation is withdrawn by mutual agreement.

(2) The local primacy agency provides 120-day advance written notice to the department that it no longer wishes to retain local primacy.

(3) The department determines that the local primacy agency no longer complies with the department's local primacy program requirements. The department shall provide written notice to the local primacy agency and the board of

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supervisors and shall provide an opportunity for a public hearing prior to initiation of any local primacy revocation action by the department.

(d) The department shall evaluate the drinking water program of each local primacy agency at least annually. The department shall prepare a report of the evaluation and list any program improvements needed to conform to the department's local primacy program requirements. A copy of the evaluation report shall be provided to the local primacy agency and the board of supervisors. The local primacy agency shall be granted a reasonable amount of time to make any needed program improvements prior to the initiation of any local primacy revocation actions.

(e) To the extent funds are available in the Safe Drinking Water Account, the department shall provide the local primacy agency with an annual drinking water surveillance program grant to cover the cost of conducting the inspection, monitoring, surveillance, and water quality evaluation activities specified in the local primacy agreement. The annual program grant pursuant to this subdivision shall not exceed the amount that the department determines would be necessary for the department to conduct inspection, monitoring, surveillance, and water quality evaluation activities in the absence of a local primacy agreement for those systems in that county.

(f) The local primacy agency shall act for the department as the primary agency responsible for the administration and enforcement of this chapter for the specified public water systems and shall be empowered with all of the authority granted to the department by this chapter over those water systems.

Credits
(Added by Stats.1995, c. 415 (S.B.1360), § 6.)

West's Ann. Cal. Health & Safety Code § 116330, CA HLTH & S § 116330
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West's Ann.Cal.Health & Safety Code § 116525

§ 116525. Permits to operate public water system; applications; renewal or amendment of permit

Currentness

(a) No person shall operate a public water system unless he or she first submits an application to the department and receives a permit as provided in this chapter. A change in ownership of a public water system shall require the submission of a new application.

(b) The department may require a new application whenever a change in regulatory jurisdiction has occurred.

(c) The department may renew, reissue, revise, or amend any domestic water supply permit whenever the department deems it to be necessary for the protection of public health whether or not an application has been filed.

Credits
(Added by Stats.1995, c. 415 (S.B.1360), § 6.)

West's Ann. Cal. Health & Safety Code § 116525, CA HLTH & S § 116525
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Enacted LegislationAmended by 2018 Cal. Legis. Serv. Ch. 92 (S.B. 1289) (WEST),

West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 8. Violations (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116625

§ 116625. Suspension or revocation of permit; grounds; notice and hearing; temporary suspension

Effective: January 1, 2018
Currentness

(a) The state board, after providing notice to the permittee and opportunity for a hearing, may suspend or revoke any permit issued pursuant to this chapter if the state board determines pursuant to the hearing that the permittee is not complying with the permit, this chapter, or any regulation, standard, or order issued or adopted thereunder, or that the permittee has made a false statement or representation on any application, record, or report maintained or submitted for purposes of compliance with this chapter. If the permittee does not request a hearing within the period specified in the notice, the state board may suspend or revoke the permit without a hearing. If the permittee submits a timely request for a hearing, the hearing shall be before the state board or a member of the state board, in accordance with Section 183 of the Water Code and the rules for adjudicative proceedings adopted under Section 185 of the Water Code. If the permit at issue has been temporarily suspended pursuant to subdivision (b), the notice shall be provided within 15 days of the effective date of the temporary suspension order. The commencement of the hearing under this subdivision shall be as soon as practicable, but no later than 60 days after the effective date of the temporary suspension order, unless the state board grants an extension of the 60 day period upon request of the permittee.

(b) The state board may temporarily suspend any permit issued pursuant to this chapter before any hearing when the action is necessary to prevent an imminent or substantial danger to health. The state board shall notify the permittee of the temporary suspension and the effective date of the temporary suspension and, at the same time, notify the permittee that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than 15 days after the effective date of the temporary suspension unless the state board grants an extension of the 15 day period upon request of the permittee, and shall deal only with the issue of whether the temporary suspension shall remain in place pending a hearing under subdivision (a). The hearing shall be conducted under the rules for adjudicative proceedings adopted by the state board under Section 185 of the Water Code. The temporary suspension shall remain in effect until the hearing under this subdivision is completed and the state board has made a final determination on the temporary suspension, which shall be made within 15 days after the completion of the hearing unless the state board grants an extension of the 15 day period upon request of the permittee. If the determination is not transmitted within 15 days after the hearing is completed, or any extension of this period requested by the permittee, the temporary suspension shall be of no further effect. Dissolution of the temporary suspension does not deprive the state board of jurisdiction to proceed with a hearing on the merits under subdivision (a).

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Credits

(Added by Stats.1995, c. 415 (S.B.1360), § 6. Amended by Stats.1997, c. 220 (S.B.68), § 33, eff. Aug. 4, 1997; Stats.2017, c. 327 (A.B.1438), § 29, eff. Jan. 1, 2018.)

West's Ann. Cal. Health & Safety Code § 116625, CA HLTH & S § 116625
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West's Ann.Cal.Pub.Util.Code § 1501

§ 1501. Legislative findings and declarations

Currentness

The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the utility for a period of time measured by the physical life of such facilities.

The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.

The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.

Credits
(Added by Stats.1965, c. 1752, p. 3924, § 1.)

West's Ann. Cal. Pub. Util. Code § 1501, CA PUB UTIL § 1501
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1502

§ 1502. Definitions

Currentness

(a) As used in this chapter, "political subdivision" means a county, city and county, city, municipal water district, county water district, irrigation district, public utility district, California water district, or any other public corporation.

(b) As used in this chapter, "service area" means an area served by a privately owned public utility in which the facilities have been dedicated to public use and in which territory the utility is required to render service to the public.

(c) As used in this chapter, "operating system" means an integrated water system for the supply of water to a service area of a privately owned public utility.

(d) As used in this chapter, "private utility" means a privately owned public utility providing a water service.

(e) As used in this chapter, "type of service" means, among other things, domestic, commercial, industrial, fire protection, wholesale, or irrigation service.

(f) As used in this chapter, "reclaimed water" means reclaimed water as defined in Section 13050 of the Water Code.

(g) As used in this chapter, "private use" means an entity's use of its own reclaimed water.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1. Amended by Stats.1994, c. 859 (S.B.778), § 1.)

West's Ann. Cal. Pub. Util. Code § 1502, CA PUB UTIL § 1502
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West's Ann.Cal.Pub.Util.Code § 1503

§ 1503. Water service; compensation of private utility after duplication of service by political subdivision

Currentness

The Legislature finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public purpose to the extent that the private utility is injured by reason of any of its property employed in providing the water service being made inoperative, reduced in value or rendered useless to the private utility for the purpose of providing water service to the service area.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1. Amended by Stats.1975, c. 1240, § 67, operative July 1, 1976.)

West's Ann. Cal. Pub. Util. Code § 1503, CA PUB UTIL § 1503
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Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1504

§ 1504. Compensation; ascertainment; acquisition of property when compensation equals value of property of utility

Currentness

Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court of competent jurisdiction pursuant to the laws of this state relating to eminent domain, including consideration of the useful value to the political subdivision of the property so taken.

Whenever the compensation by a political subdivision under this section is an amount equal to the just compensation value of all the property of the private utility in the operating system that the private utility employs in providing water service to the service area, the political subdivision may, by resolution, provide for the acquisition of all such property.

A political subdivision engaged in activities set forth in Section 1503 shall pay just compensation for the property so taken for public purposes.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1.)

West's Ann. Cal. Pub. Util. Code § 1504, CA PUB UTIL § 1504
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Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1505

§ 1505. Utilities extending water service to territory served by political subdivision

Currentness

The provisions of Sections 1503 and 1504 will be applicable to any private utility which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore served by a political subdivision with the same type of service.

Credits
(Added by Stats.1965, c. 1752, p. 3926, § 1.)

West's Ann. Cal. Pub. Util. Code § 1505, CA PUB UTIL § 1505
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Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1505.5

§ 1505.5. Compensation to political subdivision providing water service

Currentness

The provisions of Sections 1503 and 1504 will be applicable to any political subdivision which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore actually being lawfully served by any other political subdivision with facilities designed and constructed to provide the same type of service. The provisions of this section shall not apply to any territory, or portion thereof, which is the subject of any final judgment or litigation pending on the effective date of this section involving any duplication of water service occurring prior to the effective date of this section.

Credits
(Added by Stats.1973, c. 997, p. 1984, § 1.)

West's Ann. Cal. Pub. Util. Code § 1505.5, CA PUB UTIL § 1505.5
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1506

§ 1506. Private utility as including mutual water company; property affected; exceptions

Effective: January 1, 2015
Currentness

(a) As used in this chapter, "private utility" includes a mutual water company. In its application to mutual water companies, this chapter affects and relates only to the property, or portion of any property, of a mutual water company that is employed by the company in providing water service in or for a territory that is actually being provided with water service by the company when a political subdivision constructs facilities to provide or extend water service or provides or extends the service to the territory, and that territory shall constitute the "service area" of a mutual water company as used in Section 1502.

(b) Subject to the preservation of rights of a mutual water company in subdivision (c), this section does not apply to a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, if the political subdivision complies with the Water Recycling Act of 1991 (Chapter 7.5 (commencing with Section 13575) of Division 7 of the Water Code).

(c) The exception in subdivision (b), for a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, does not apply to those customers and their properties to which the mutual water company was providing recycled water service, or for whom the mutual water company has identified and developed specific plans to provide recycled water service, as of December 31, 2014.

Credits
(Added by Stats.1965, c. 1752, p. 3926, § 1. Amended by Stats.2014, c. 817 (A.B.2443), § 1, eff. Jan. 1, 2015.)

West's Ann. Cal. Pub. Util. Code § 1506, CA PUB UTIL § 1506
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1507

§ 1507. Application of chapter; conditions

Currentness

This chapter shall not be applicable if all of the following conditions are met:

(a) The use is limited to the private use of reclaimed water by an entity that owns a water reclamation plant.

(b) The use is limited to the premises of a water reclamation plant or landfill owned by the entity that owns or operates the water reclamation plant.

(c) The use is limited to dust suppression, and irrigation purposes, and other uses on the site for which reclaimed water has been approved by the State Department of Health Services.

(d) No existing reclaimed water facilities, whether owned or operated by a private utility or political subdivision, can reasonably and economically serve the intended use.

(e) If reclaimed water is used on the premises of a landfill, the entity provides appropriate compensation to the private utility or political subdivision for those facilities directly used for the water services being replaced by reclaimed water service. Appropriate compensation shall not include valuations based on revenues lost by the private utility or political subdivision due to replacement of water service with reclaimed water.

(f) This section shall apply only in Los Angeles County.

Credits
(Added by Stats.1994, c. 859 (S.B.778), § 2.)

West's Ann. Cal. Pub. Util. Code § 1507, CA PUB UTIL § 1507
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KeyCite Red Flag - Severe Negative Treatment
KeyCite Red Flag Negative Treatment§1508. Repealed by Stats.1953, c. 701, p. 1970, §1

West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1508

§ 1508. Repealed by Stats.1953, c. 701, p. 1970, § 1

Currentness

West's Ann. Cal. Pub. Util. Code § 1508, CA PUB UTIL § 1508
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West's Annotated California Codes
Water Code (Refs & Annos)
Division 1. General State Powers over Water (Refs & Annos)
Chapter 1. General State Policy (Refs & Annos)

West's Ann.Cal.Water Code § 106.3

§ 106.3. Safe, clean, affordable, and accessible water; consideration by state agencies; application and implementation of section

Effective: January 1, 2013
Currentness

(a) It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

(b) All relevant state agencies, including the department, the state board, and the State Department of Public Health, shall consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section.

(c) This section does not expand any obligation of the state to provide water or to require the expenditure of additional resources to develop water infrastructure beyond the obligations that may exist pursuant to subdivision (b).

(d) This section shall not apply to water supplies for new development.

(e) The implementation of this section shall not infringe on the rights or responsibilities of any public water system.

Credits
(Added by Stats.2012, c. 524 (A.B.685), § 1.)

West's Ann. Cal. Water Code § 106.3, CA WATER § 106.3
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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64670

§ 64670. General Requirements.

(a) Unless otherwise indicated, the requirements in this chapter apply to community water systems and nontransient-noncommunity water systems (hereinafter referred to as "water systems" or "systems").

(b) An action level exceedance shall not constitute a violation of this chapter.

(c) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using the methods prescribed at 40 Code of Federal Regulations, Section 141.89 [Federal Register (FR) 56 (110), 26460-26564, June 7, 1991; amended July 15, 1991 (56 FR 32113), June 29, 1992 (57 FR 28786), June 30, 1994 (59 FR 33860), and January 12, 2000 (65 FR 1250)]. Field tests shall be performed by water treatment or distribution operators certified by the Department pursuant to Section 106875 of the Health and Safety Code or by personnel trained to perform these tests by the Department, a certified laboratory, or certified operator.

(d) A new water system shall initiate compliance with this chapter within six months of distributing water to consumers. An existing system that changes size pursuant to the definitions in sections 64671.30, 64671.40 and 64671.70, shall initiate compliance with the requirements of this chapter applicable to the new size within six months.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New chapter 17.5, article 1 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of chapter 17.5 (articles 1-9, sections 64670-64692), article 1 (sections 64670-64672.6) and section and new chapter 17.5 (articles 1-9, sections 64670-64690.80), article 1 (sections 64670-64671.85) and section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64670, 22 CA ADC § 64670

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22 CCR § 64671.05

§ 64671.05. Action Level.

"Action level", for the purpose of this chapter only, means the concentration of lead or copper in water that is used to determine the requirements of this chapter that a system shall meet.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.05, 22 CA ADC § 64671.05

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22 CCR § 64671.08

§ 64671.08. Action Level Exceedance.

"Action level exceedance", for the purpose of this chapter only, means that the level of lead or copper is greater than the respective action level, as determined pursuant to section 64678(d) through (g).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.08, 22 CA ADC § 64671.08

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22 CCR § 64671.09

§ 64671.09. Corrosion Control Treatment or CCT.

"Corrosion control treatment" or "CCT" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps without causing the water system to violate any primary drinking water standards.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.09, 22 CA ADC § 64671.09

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Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.10

§ 64671.10. Corrosion Inhibitor.

"Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.10, 22 CA ADC § 64671.10

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22 CCR § 64671.15

§ 64671.15. Detection Limit for Purposes of Reporting or DLR.

"Detection limit for purposes of reporting" or "DLR" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the Department.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.15, 22 CA ADC § 64671.15

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22 CCR § 64671.20

§ 64671.20. Effective Corrosion Inhibitor Residual.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of Note, transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.20, 22 CA ADC § 64671.20

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.25

§ 64671.25. First Draw Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.25, 22 CA ADC § 64671.25

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22 CCR § 64671.30

§ 64671.30. Large Water System.

"Large water system", for the purpose of this chapter only, means a water system that serves more than 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.30, 22 CA ADC § 64671.30

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Title 22. Social Security
Division 4. Environmental Health
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Article 1. General Requirements and Definitions

22 CCR § 64671.35

§ 64671.35. Lead Service Line.

"Lead service line" means a service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.35, 22 CA ADC § 64671.35

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22 CCR § 64671.40

§ 64671.40. Medium-Size Water System.

"Medium-size water system", for the purpose of this chapter only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.40, 22 CA ADC § 64671.40

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22 CCR § 64671.50

§ 64671.50. Optimal Corrosion Control Treatment.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.50, 22 CA ADC § 64671.50

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22 CCR § 64671.55

§ 64671.55. Period.

"Period", for the purpose of this chapter only, means a six-month monitoring timeframe.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.55, 22 CA ADC § 64671.55

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22 CCR § 64671.60

§ 64671.60. Service Line Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.60, 22 CA ADC § 64671.60

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22 CCR § 64671.65

§ 64671.65. Single-Family Structure.

"Single-family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.65, 22 CA ADC § 64671.65

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22 CCR § 64671.70

§ 64671.70. Small Water System.

"Small water system", for the purpose of this chapter only, means a water system that serves 3,300 persons or fewer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.70, 22 CA ADC § 64671.70

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22 CCR § 64671.75

§ 64671.75. Tap Sampling.

"Tap sampling" means sampling conducted pursuant to sections 64675 (General Requirements for Tap Sampling for Lead and Copper), 64675.5 (Tap Sampling Frequency), and 64677 (Sampling Collection Methods for Taps) at sites selected pursuant to section 64676 (Sampling Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.75, 22 CA ADC § 64671.75

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22 CCR § 64671.80

§ 64671.80. Water Quality Parameter or WQP.

"Water quality parameter" or "WQP", for the purposes of this chapter, means a characteristic or constituent of water, or a water treatment chemical added to water to control corrosion.

Note: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116275 and 116350, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

2. Amendment of section and Note filed 5-28-2014; operative 7-1-2014 (Register 2014, No. 22).

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22 CCR § 64671.80, 22 CA ADC § 64671.80

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22 CCR § 64671.85

§ 64671.85. WQP Monitoring.

"WQP monitoring" means sampling conducted pursuant to sections 64680 (General WQP Monitoring Requirements), 64681 (Initial WQP Monitoring), and 64682 (WQP Monitoring Requirements after CCT Installation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.85, 22 CA ADC § 64671.85

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22 CCR § 64672

§ 64672. Analytical Methods and Detection Limits.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.89.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including new subsections (c)-(d), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672, 22 CA ADC § 64672

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22 CCR § 64672.3

§ 64672.3. Determination of Compliance with Lead and Copper Action Levels.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.80(c).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.3, 22 CA ADC § 64672.3

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22 CCR § 64672.6

§ 64672.6. Use of Information Developed Prior to December 1, 1995.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.81(d) and (e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(2)-(3), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.6, 22 CA ADC § 64672.6

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22 CCR § 64673

§ 64673. Small and Medium-Size Water System Requirements.

(a) The requirements in this section are applicable to all small and medium-size water systems.

(b) Each small and medium-size system shall conduct standard tap sampling for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) A small or medium-size system with an action level exceedance shall take the following steps:

(1) Monitor WQPs beginning with the first period after the exceedance, pursuant to section 64681 (Initial WQP Monitoring).

(2) Proceed with subparagraphs (A) through (E) if a corrosion control study is required by the Department based on a review of the system's water quality, distribution system, water treatment, and system features. If such a study is required, the Department will notify the system in writing within 12 months of the action level exceedance.

(A) Complete the study, pursuant to section 64683 (Corrosion Control Study Procedure), within eighteen months of being notified of the requirement; the system will be notified of the Department's designation within six months of the study's completion;

(B) Begin installation of the CCT designated by the Department, pursuant to section 64684 (CCT Installation and Operation), within twelve months of being notified of the Department's designation;

(C) Complete CCT installation and begin operation within 24 months of the designation;

(D) Complete two periods of standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) and two periods of WQP monitoring pursuant to section 64682 (WQP Monitoring After CCT Installation) within 36 months of the designation; and

(E) Monitor WQPs and operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the designation.

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(3) If the Department does not require a corrosion control study, the system shall submit to the Department, within six months of the action level exceedance, a written recommendation for CCT. The Department may require the system to conduct additional WQP monitoring to assist in the review of the CCT recommendation. The Department will designate CCT and notify the system in writing within the following timeframes; the system shall then comply with paragraphs (2)(B) through (E):

(A) For medium-size systems, within 12 months of the exceedance, and

(B) For small-size systems, within 18 months of the exceedance;

(4) Monitor source waters, pursuant to article 6 (Source Water Requirements for Action Level Exceedances) of this chapter;

(d) A small or medium-size system with an action level exceedance for lead shall:

(1) Complete a lead public education program, pursuant to article 7 (Public Education Program for Lead Action Level Exceedances) of this chapter; and

(2) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements for Action Level Exceedances) of this chapter.

(e) A small or medium-size system that is required to comply with subsections (c) or (d) may cease completing the steps whenever the system does not have an action level exceedance during each of two consecutive periods. If any such system thereafter has an exceedance during any period, the system shall:

(1) Resume completion of the applicable steps, beginning with the first step that was not previously completed. The Department may require a system to repeat steps previously completed if the Department determines that this is necessary to implement the requirements of this section, based on a review of the system's data and treatment status.

(2) Resume standard tap sampling pursuant to 64675 (General Requirements for Tap Sampling for Lead and Copper).

(3) Conduct WQP monitoring during the period in which the system exceeded the action level, pursuant to section 64682, (WQP Monitoring After CCT Installation) or 64684 (CCT Installation and Operation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. New article 2 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 2 (sections 64673-64676), new article 2 (sections 64673-64674) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64674

§ 64674. Large Water System Requirements.

(a) The requirements in this section are applicable to all large water systems.

(b) Each large system shall conduct standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper), and monitor for WQPs pursuant to section 64681 (Initial WQP Monitoring). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) Each large system shall complete a corrosion control study, pursuant to section 64683 (Corrosion Control Study Procedure), unless it can meet one of the following criteria:

(1) The system submits the following documentation to the Department and the Department determines in writing that the system has optimized corrosion control based on its review of the submittal:

(A) The results of all test samples collected for each of the WQPs in section 64683(a)(3) (Corrosion Control Study Procedure);

(B) A report explaining the test methods used by the water system to evaluate corrosion control treatment alternatives pursuant to section 64683 (Corrosion Control Study Procedure), the results of all tests conducted, and the basis for the system's selection of CCT;

(C) A report explaining how CCT has been installed and is being operated pursuant to section 64684 (CCT Installation and Operation); and

(D) The results of tap sampling for lead and copper for two consecutive periods after corrosion control has been installed; or

(2) The system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678 (a), (b) and (c) (Determination of Exceedances of Lead and Copper Action Levels), or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period. In either case, the system shall also not have a copper action level exceedance. If such a system ceases to meet this criteria, it shall conduct a corrosion control

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study, pursuant to section 64683 (Corrosion Control Study Procedure) within eighteen months of not meeting the criteria, and proceed thereafter pursuant to subsection (e).

(d) Each large system that conducts a corrosion control study will be notified of the Department's designation for CCT within 6 months of the study's completion and shall comply with the following timeframes:

(1) Begin CCT installation within 12 months of being notified of the Department's designation for CCT.

(2) Complete CCT installation within 24 months of the Department's designation.

(3) Complete two periods of WQP monitoring and tap sampling for lead and copper within 36 months of the Department's designation.

(4) Operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the Department's designation. WQP tap monitoring may be reduced as follows:

(A) Pursuant to section 64682(c) (WQP Monitoring After CCT Installation), if the system has no action level exceedance; or

(B) To once every three years at the reduced number of sites pursuant to table 64680-A, if the system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods.

(5) If source water treatment has been installed, conduct source sampling for lead and copper pursuant to section 64685 (Source Water Monitoring and Treatment Designation).

(e) A large system with an action level exceedance for lead shall:

(1) Monitor source waters, pursuant to article 6 (Source Water Requirements) of this chapter;

(2) Complete a lead public education program, pursuant to article 7 (Public Education Program for Action Level Exceedances) of this chapter; and

(3) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements) of this chapter.

(f) A large system with an action level exceedance for copper shall monitor source waters pursuant to article 6 (Source Water Requirements) of this chapter.

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Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(2) and (a)(4)-(6), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64675

§ 64675. General Requirements for Tap Sampling for Lead and Copper.

(a) During each period, each system shall conduct standard tap sampling by collecting one sample from the number of sites based on the number of people served specified in table 64675-A under Standard Tap Sampling.

(b) During each period, each system conducting reduced tap sampling shall collect at least one sample from the number of sites based on the number of people served specified in table 64675-A under Reduced Tap Sampling, as follows:

(1) The sites shall be representative of the sites required for standard tap sampling.

(2) The samples shall be collected during the months of June, July, August, or September, unless the Department approves an alternate set of four months based on a review of the system's operations and lead and copper data, in which case the system shall initiate sampling during the alternate set of four months when directed in writing to do so by the Department, as follows:

(A) No later than 21 months after the previous period, if sampling annually, or

(B) No later than 45 months after the previous period, if sampling triennially.

Table 64675-A Lead and Copper Tap Sampling Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

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Lead and Copper Tap Sampling Sites

System Size	*Standard Tap Sampling*	*Reduced Tap Sampling*
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

(c) Sample sites shall be selected pursuant to section 64676 (Sample Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678), new article 3 (sections 64675-64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64675.5

§ 64675.5. Tap Sampling Frequency.

(a) A system shall conduct standard tap sampling for two consecutive periods; thereafter, tap sampling frequency may be reduced pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) as follows:

(1) If a system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods, it may reduce the sampling to once every three years at the reduced number of sites;

(2) For systems that do not meet the criteria in paragraph (1), after two consecutive periods with no action level exceedance, the frequency may be reduced to annually at the reduced number of sites, if the system receives written approval from the Department based on its review of the system's data. After sampling for three years (including the initial sampling year) with no action level exceedance, the frequency may be reduced to once every three years at the reduced number of sites, if the system receives written approval from the Department.

(b) If a system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678(a), (b), and (c) or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period, the system shall conduct tap sampling once every three years.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64676

§ 64676. Sample Site Selection.

(a) Each system shall identify a pool of sampling sites that:

(1) Is large enough to ensure that the water system can collect the number of lead and copper tap samples required in section 64675 (General Requirements for Tap Sampling for Lead and Copper);

(2) Meets the criteria in subsections (c) or (d), as applicable; and

(3) Does not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(b) Prior to identifying sampling sites, each system shall conduct an evaluation of its distribution system to determine the construction materials (lead, copper, and galvanized steel) exposed to the water. If necessary to ensure the sample site criteria is met, the system shall collect additional information during the course of its normal operations (e.g., checking service line materials when reading water meters, or performance maintenance activities) and from the following:

(1) All plumbing codes, permits, and records in the files of the building department(s) that indicate the plumbing materials installed within publicly and privately owned structures connected to the distribution system;

(2) All inspections and records of the distribution system that indicate the material composition of the service connections connecting a structure to the distribution system; and

(3) All existing water quality information, which includes the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(c) Each community water system shall:

(1) Identify a sampling pool of "tier 1" sampling sites consisting of single-family structures except that, when multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures as "tier 1" sites in its sampling pool. The "tier 1" sampling sites shall

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(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Be served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites, complete its sampling pool with "tier 2" sampling sites, consisting of buildings, including multiple-family residences that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(3) If there is an insufficient number of "tier 1" and "tier 2" sampling sites, complete its sampling pool with "tier 3" sampling sites, consisting of single-family structures that contain copper pipes with lead solder installed before 1983. A system with an insufficient number of tier 1, 2 and 3 sites shall complete its sampling pool with representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(d) Each nontransient-noncommunity water system shall:

(1) Identify a pool of "tier 1" sampling sites consisting of buildings that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites that meet the criteria in paragraph (1), complete its sampling pool with sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the system shall use representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(e) Each system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples

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from sites served by a lead service line. A system that cannot identify a sufficient number of sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

(f) A system that does not have enough taps that can provide first-draw samples shall submit written documentation to the Department identifying standing times and locations for enough non-first-draw samples to make up its sampling pool by the start of its next monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677

§ 64677. Sample Collection Methods for Taps.

(a) All tap samples for lead and copper collected pursuant to this chapter, with the exception of lead service line samples collected under section 64689 (Lead Service Line Sampling) and samples collected under subsection (d), shall be first-draw samples, pursuant to subsection (b).

(b) A first-draw sample shall be one liter in volume and have stood motionless in the plumbing system of each site for at least six hours, but not more than twelve. Samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. Samples from a non-residential building shall be collected at an interior tap from which water is typically drawn for consumption. Samples may be collected by the system or the system may allow residents to collect tap samples after instructing the residents of the sampling procedures specified in this section. To avoid problems of residents handling nitric acid, acidification of samples may be done up to 14 days after collection. After acidification to resolubilize the metals, the sample shall stand in the original container for the time specified by the method used pursuant to section 64670(c) before it can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(c) A system shall collect each tap sample from the same site from which it collected a sample during the previous period. If the system cannot gain entry to a site in order to collect a tap sample, it may collect the tap sample from another site in its sampling pool as long as the new site meets the same criteria, and is as close as possible to the original site.

(d) A system that does not have enough taps to supply first-draw samples may apply to the Department in writing to substitute non-first-draw samples. Such systems shall collect as many first-draw samples as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 3 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

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3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677.5

§ 64677.5. Sample Invalidation.

(a) A lead or copper sample may be invalidated by the Department if at least one of the following conditions is met and documented in writing:

(1) The laboratory establishes that improper sample analysis caused erroneous results;

(2) The Department determines that the sample was taken from a site that did not meet the site selection criteria in section 64676 (Sample Site Selection);

(3) The sample container was damaged in transit;

(4) The Department determines the sample does not meet the requirements in section 64677 (Sample Collection Methods for Taps); or

(5) There is substantial reason to believe that the sample was subject to tampering.

(b) To apply for invalidation of one or more samples, a system shall report the results of all samples for the period to the Department, including written documentation to support the system's belief that one or more samples should be invalidated.

(c) A sample invalidated pursuant to subsection (a) shall not count toward determining lead or copper 90th percentile levels or toward meeting any monitoring requirements in this chapter.

(d) The system shall collect replacement samples for any invalidated samples if, after the invalidation of one or more samples, the system has too few samples to meet the monitoring requirements of this chapter. Replacement samples taken after the end of the applicable period shall not be used to meet the monitoring requirements of a subsequent period. Replacement samples shall be collected as follows:

(1) As soon as possible, but no later than 20 days after the system receives notification from the Department that it has invalidated the sample, or by the end of the applicable period, whichever occurs later; and

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(2) At the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 3. Monitoring for Lead and Copper

22 CCR § 64678

§ 64678. Determination of Exceedances of Lead and Copper Action Levels.

(a) The detection limits for purposes of reporting (DLRs) for lead and copper are as follows:

Table 64678-A. DLRs for Lead and Copper

Contaminant	DLR (mg/L)
Lead	0.005
Copper	0.050

Contaminant	*DLR (mg/L)*
Lead	0.005
Copper	0.050

(b) For purposes of determining the difference in concentration between the source water and the 90th percentile tap results, the following shall apply:

(1) Analytical results for lead greater than or equal to 0.001 mg/L and less than 0.005 mg/L shall be as measured or 0.0025 mg/L, whichever is greater.

(2) Analytical results for copper greater than or equal to 0.001 mg/L and less than 0.050 mg/L shall be as measured or 0.025 mg/L, whichever is greater.

(3) Analytical results below 0.001 mg/L for lead and copper shall be considered zero.

(c) Analytical results below the DLRs for lead and copper specified shall be reported as zero.

(d) The lead action level is exceeded if the concentration of lead in more than 10 percent of the tap water samples collected during any period is greater than 0.015 mg/L (i.e., if the “90th percentile” lead level is greater than 0.015 mg/L).

(e) The copper action level is exceeded if the concentration of copper in more than 10 percent of the tap water samples collected during any period is greater than 1.3 mg/L (i.e., if the “90th percentile” copper level is greater than 1.3 mg/L).

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(f) The 90th percentile lead and copper levels shall be computed as follows:

(1) The results of all lead or copper samples collected during a period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(2) The number of samples taken during the period shall be multiplied by 0.9.

(3) The contaminant concentration in the numbered sample identified by the calculation in paragraph (f)(2) is the 90th percentile contaminant level.

(4) For water systems serving less than or equal to 100 people that collect 5 samples per period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(g) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the department for making any determinations.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64678.5

§ 64678.5. Monitoring Waivers for Small Systems.

(a) A small water system may apply to the Department for a waiver to reduce the tap sampling frequency for lead and copper to once every nine years, and shall continue tap sampling as required by this chapter until it receives written notification from the Department that the waiver has been approved.

(b) A system that meets the following materials and monitoring criteria for both lead and copper will be granted a full waiver, while a system that meets both sets of criteria for only one of the chemicals will be granted a partial waiver that covers only that chemical.

(1) To meet the materials criteria, a system shall provide certification and documentation that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, satisfy the following:

(A) For lead, the system shall be free of the following lead-containing materials:

1. Plastic pipes that contain lead plasticizers, or plastic service lines that contain lead plasticizers; and

2. Lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the utility can demonstrate to the Department that such fittings and fixtures will not leach lead into the drinking water.

(B) For copper, the system shall be free of copper pipes and copper service lines.

(2) To meet the monitoring criteria, the system shall have completed at least one period of standard tap sampling and demonstrate that the 90th percentile levels for all periods of tap sampling conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, do not exceed the following:

(A) For lead, 0.005 mg/L.

(B) For copper, 0.65 mg/L.

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(c) If granted a waiver, the system shall

(1) Comply with any requirements that the Department includes as conditions of the waiver, such as limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver;

(2) Conduct tap sampling at the reduced number of sites for one period every nine years for the chemical(s) for which the waiver has been granted;

(3) Provide the materials certification specified in paragraph (b)(1) for the chemical(s) for which the waiver has been granted, along with the monitoring results; and

(4) If the waiver was granted for only one chemical, continue to monitor pursuant to this chapter for the other chemical.

(d) If the system continues to satisfy the requirements of subsections (b) and (c), the waiver will be renewed automatically, unless the Department notifies the system in writing that the waiver has been revoked and why. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria in subsection (b) and (c).

(e) If a system with a waiver adds a new source of water or changes any water treatment, the Department may require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional tap sampling periods), if it deems such modifications are necessary to address treatment or source water changes at the system.

(f) If a system with a waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, it shall notify the Department in writing no later than 60 days after becoming aware of such a change.

(g) If a system with a waiver that has been collecting samples during the months of June, July, August and September receives Department approval for an alternate set of months pursuant to section 64675(b)(2) (General Requirements for Tap Sampling for Lead and Copper), it shall conduct its next tap sampling before the waiver expires.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64679

§ 64679. Supplemental Monitoring.

A water system with a lead action level exceedance shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 4 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (d) and (f), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 4 (section 64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

This database is current through 7/27/18 Register 2018, No. 30

22 CCR § 64679, 22 CA ADC § 64679

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22 CCR § 64680

§ 64680. General WQP Monitoring Requirements.

(a) WQP tap monitoring shall be:

(1) Representative of water quality throughout the distribution system, by considering the number of persons served, the different sources of water and treatment methods employed, and seasonal variability;

(2) Not restricted to sites targeted for lead and copper sampling; and

(3) Include two samples for each applicable WQP during each period, from the standard number of sites, based on the number of persons served, specified in table 64680-A.

Table 64680-A WQP Tap Monitoring Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	25	10
10,001 to 100,000	10	7
3,301 to 10,000	3	3
501 to 3,300	2	2
101 to 500	1	1
<101	1	1

System Size *Standard Tap Sampling* *Reduced Tap Sampling*
(Minimimum Number of Sites)
>100,000 25 10
10,001 to 100,000 10 7
3,301 to 10,000 3 3
501 to 3,300 2 2
101 to 500 1 1
<101 1 1

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(b) Initial WQP monitoring at the entry point(s) to the distribution system shall be two samples for each applicable WQP at each entry point from locations representative of each source after treatment. After the installation of CCT, only one sample is required at each entry point. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at each entry point during normal operating conditions.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 5 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (a)(1)(D)2.A. (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(1)(D)2.D., (a) (1)(D)3.A. and (b)(5), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 4 (section 64679), repealer of former article 5 (sections 64680-64681), new article 4 (sections 64680-64684) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64680, 22 CA ADC § 64680

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22 CCR § 64681

§ 64681. Initial WQP Monitoring.

For initial WQP monitoring, each system shall monitor for the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements):

(a) pH;

(b) Alkalinity;

(c) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(d) Silica, when an inhibitor containing a silicate compound is used;

(e) Calcium;

(f) Conductivity; and

(g) Water temperature.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

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4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64681, 22 CA ADC § 64681

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22 CCR § 64682

§ 64682. WQP Monitoring After CCT Installation.

(a) Each system that installs CCT shall monitor the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements), as applicable:

(1) At taps:

(A) pH;

(B) Alkalinity;

(C) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(D) Silica, when an inhibitor containing a silicate compound is used;

(E) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) At each entry point to the distribution system every two weeks as a minimum:

(A) pH;

(B) When alkalinity is adjusted as part of CCT, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(C) When a corrosion inhibitor is used as part of CCT, a reading of the dosage rate of the inhibitor used, and the concentration of the active ingredient(s).

(b) A ground water system may use entry points that are representative of water quality and treatment conditions throughout the system for the monitoring required in paragraph (a)(2) as follows:

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(1) If waters from untreated and treated groundwater sources mix, the system shall monitor entry points representative of each;

(2) Prior to monitoring, the system shall submit written documentation to the Department identifying the sites and demonstrating that they are representative.

(c) Subject to the Department's written approval, a system that has no action level exceedance and meets the Department-specified WQP values or ranges may reduce tap monitoring as follows:

(1) After two consecutive periods during which it has met the WQP values or ranges, the system shall monitor each period at the reduced number of sites, pursuant to table 64680-A;

(2) After three consecutive years (including the initial sampling year) during which it has met the WQP values or ranges, the system shall monitor annually at the reduced number of sites at evenly-spaced intervals throughout the year; and

(3) After three consecutive years of annual monitoring during which the system meets the WQP values or ranges, the system shall monitor once every three years at the reduced number of sites at evenly-spaced intervals throughout the monitoring year.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 6 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (i), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 6 (sections 64682-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64683

§ 64683. Corrosion Control Study Procedure.

(a) Each system conducting a corrosion control study shall:

(1) Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the CCT for that system:

(A) Alkalinity and pH adjustment;

(B) Calcium hardness adjustment; and

(C) The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(2) Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documentation of such treatments from systems of similar size, water chemistry and distribution system configuration.

(3) Measure the following WQPs in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above:

(A) Lead;

(B) Copper;

(C) pH;

(D) Alkalinity;

(E) Calcium;

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(F) Conductivity;

(G) Corrosion control inhibitor active ingredient (when an inhibitor is used);

(H) Water temperature.

(4) Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(B) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes.

(6) Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes CCT for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (a)(1) through (5) of this section.

(b) Based on the study conducted pursuant to subsection (a), and a system's recommended treatment alternative, the Department will either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (a)(1) of this section, notify the system of its decision on CCT in writing and explain the basis for its determination. If the Department requests additional information to aid its review, the water system shall provide the information.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsections (c)(2) and (d) (Register 96, No. 38).

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4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 5 (sections 64680-64681), new article 5 (sections 64683-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64684

§ 64684. CCT Installation and Operation.

(a) Each system shall install and operate throughout its distribution system the CCT designated by the Department in subsection 64683(b) (Corrosion Control Studies) or paragraph 64673(c)(3) (Small and Medium-size Water System Requirements) and monitor WQPs pursuant to section 64682 (WQP Monitoring After CCT Installation). When the system completes its installation of CCT, it shall submit a letter to the Department certifying that it has done so.

(b) After the system installs CCT, the Department will review the treatment and pre- and post-treatment tap sampling and WQP monitoring data and specify WQPs in writing within 42 months of its CCT designation as follows:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value of 7.0 or greater, measured in all tap samples, unless the Department determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Department determines is necessary to maintain a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of CCT, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples; and

(6) Values for additional WQPs determined by the Department to reflect CCT for the system.

(c) After the Department specifies WQP values and ranges, each system shall monitor pursuant to section 64680 (General WQP Monitoring Requirements) and maintain WQPs as specified by the Department.

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(d) A system shall be out of compliance with the WQP values and ranges specified by the Department pursuant to subsection (b) for any period during which it has excursions for more than nine days.

(1) An excursion occurs when a “daily value” at one or more sample sites for one or more WQPs in a day is below the minimum value or outside the range of Department-specified WQPs.

(2) A “daily value” for a WQP at a site is determined as follows:

(A) If sampling is more than once a day by continuous monitoring, grab sampling or both, the daily value shall be the average of all the day's results at the sampling site.

(B) If sampling is once a day, the daily value shall be the day's result.

(C) If sampling is less than once a day, the daily value shall apply to the day that the water supplier receives the result from the laboratory or the 30th day after the sample is collected, whichever comes first.

(3) When an excursion occurs, within 48 hours of being notified of the results of the initial sample(s), the system shall investigate the cause and collect a followup sample at each affected site for each WQP that did not meet the Department-specified values. The criteria in paragraphs (d)(1) and (2) shall be applied to the followup sample results to determine if another excursion has occurred.

(e) A system conducting reduced WQP tap monitoring that fails to meet the Department-specified WQPs shall resume standard WQP tap monitoring pursuant to section 64680 (General WQP Monitoring Requirements).

(f) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the Department for making any determinations (i.e., determining concentrations of WQPs).

(g) Upon its own initiative or in response to a request by a system, the Department may modify in writing its designation of CCT or its specified WQP values and ranges if it determines that modification is necessary to ensure that the system continues to maintain CCT. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(A) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 6. Source Water Requirements for Action Level Exceedances

22 CCR § 64685

§ 64685. Source Water Monitoring and Treatment Designation.

(a) Within six months of an action level exceedance, a system shall:

(1) Collect one lead and copper source water sample from each entry point to the distribution system that is representative of the source or combined sources and is collected after any treatment, if treatment is applied before distribution;

(2) In writing, either recommend to the Department the installation and operation of a source water treatment (ion exchange, reverse osmosis, lime softening, or coagulation/filtration) or demonstrate that source water treatment is not needed to minimize lead and copper levels at users' taps; and

(3) Submit any additional information requested by the Department to aid in its determination of whether source water treatment is necessary to minimize lead and copper levels in water delivered to users' taps.

(b) The Department will make a determination regarding source water treatment within six months after submission of monitoring results under subsection (a).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 6 (sections 64682-64685), new article 6 (sections 64685-64686) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64686

§ 64686. Requirements Subsequent to the Department's Designation.

(a) If the Department determines that source water treatment is required pursuant to subsection 64685(b), the system shall comply with the following within the specified timeframes that begin with the Department's determination regarding source water treatment:

(1) Install the treatment within 24 months and submit a letter to the Department certifying that installation has been completed;

(2) Collect an additional source water sample from each entry point to the distribution system during two consecutive periods within 36 months;

(3) Complete two consecutive periods of standard monitoring for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) within 36 months.

(b) Within 6 months after the system installs source water treatment, based on its review of the data collected pursuant to subsection (a) and the contaminant removal capability of the installed treatment when properly operated, the Department will specify maximum permissible lead and copper levels for water entering the distribution system. The water system shall comply with these maximum permissible levels.

(c) After the Department specifies maximum permissible levels or determines that source water treatment is not needed, the system shall conduct standard monitoring related to source water pursuant to table 64686-A, according to source water type. If approved by the Department based on a review of source water data, the system may reduce monitoring pursuant to table 64686-A.

Table 64686-A. Standard and Reduced Monitoring Related to Source Water

Type of monitoring	Ground water	Surface water with or without groundwater
Standard monitoring	1 sample at each entry point every year, as a minimum	1 sample at each entry point every 3 years, as a minimum

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Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

Type of monitoring	*Ground water*	*Surface water with or without groundwater*
Standard monitoring	1 sample at each entry point every 3 years, as a minimum	1 sample at each entry point every year, as a minimum
Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

(d) If a system does not have an action level exceedance for lead and/or copper during three consecutive years for groundwater or one year for surface water with or without groundwater, the system is not required to conduct sampling related to source water for the specific chemical.

(e) If the results of sampling indicate an exceedance of the maximum permissible levels specified pursuant to subsection (b), one additional sample may be collected at the same sampling point as soon as possible within 14 days of the initial sample to confirm the result. If a confirmation sample is collected, then the average of the initial and confirmation sample results shall be used to determine compliance with the maximum permissible levels.

(f) A water system that begins using a new water source shall reinitiate standard monitoring pursuant to subsection (c) and conduct three rounds of monitoring with the new source online before reducing the monitoring frequency.

(g) Upon its own initiative or in response to a request by a system, the Department may modify its determination of the source water treatment, or maximum permissible lead and copper concentrations for treated source water. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 1-16-90; operative 2-15-90 (Register 90, No. 4).

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2. Renumbering and amendment of Noteof former section 64686 to section 64469 filed 5-27-92; operative 6-26-92 (Register 92, No. 22).

3. New article 7 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

4. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

5. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (b)(1) and (c), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

6. Repealer of article 7 (sections 64686-64688) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64687

§ 64687. Lead Public Education Program Content and Delivery.

(a) Each system with a lead action level exceedance shall conduct a lead public education program that includes delivery of the following public education materials pursuant to subsection (d). Within 10 days after the period during which the program was required, the system shall submit a letter to the Department demonstrating that it has delivered the public education materials as required and include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered the materials during the previous year.

(1) Except as provided in subsection (b), a community water system shall include the following text in all of the printed materials it distributes through its lead public education program:

(A) Introduction. The California Department of Health Services (DHS), the U.S. Environmental Protection Agency, and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the state and federal action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under state and federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination -- like dirt and dust -- that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(C) Lead In Drinking Water

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1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The U.S. Environmental Protection Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. In California, a similar law prohibiting the use of both lead solder and lead pipe was enacted in 1985.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(D) Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

1. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of water system].

2. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

A. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

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B. Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

C. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

D. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the California Department of Health Services and your local environmental health department about the violation.

E. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the record of building permits which should be maintained in the files of the [insert name of department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. If the line is only partially owned by the [insert name of the city, county, or water system that owns the line], we are required to provide the owner of the privately-owned portion of the service line with information on how to replace the privately-owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, stainless steel, and plastic pipes. Partial replacement should avoid the creation of mixed piping systems and include the installation of approved dielectric couplings at all dissimilar metal interfaces.

F. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

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A. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Since these treatments remove dissolved minerals, water treated by these devices will have a greater tendency to leach lead from brass faucets or fittings which the water contacts after treatment. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit. The California Department of Health Services certifies the effectiveness of home treatment devices. Only devices certified by the California Department of Health Services to remove lead should be used for this purpose.

B. Purchase bottled water for drinking and cooking.

4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name of city or county department of public utilities] at [insert phone number] can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the California Department of Health Services for testing water quality;

B. [insert the name of city or county department that issues building permits] at [insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

C. California Department of Health Services, Childhood Lead Poisoning Prevention Branch at [insert the phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead and how you can have your child's blood tested.

5. The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead. [Insert names and phone numbers of at least two laboratories].

(2) Except as provided in subsection (b), a nontransient-noncommunity water system shall include either the text in paragraph (a)(1) or the following text, in all of the printed materials it distributes through its lead public education program.

(A) Introduction. The California Department of Health Services, the United States Environmental Protection Agency (EPA) and [insert name of water supplier] are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations

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of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

(D) Steps You Can Take. Steps you can take to reduce exposure to lead in drinking water include:

1. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

2. Do not cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.

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4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name or title of facility official if appropriate] at [insert phone number] can provide you with information about your facility's water supply; and

B. [insert the name or title of the State Department of Health Services] at [insert phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead.

(b) Any additional information presented shall be consistent with the information in subsection (a) and be in plain language that can be understood by laypersons. A system may delete information pertaining to lead service lines, on approval by the Department, if the water system does not have any such lines. Building permit record availability and consumer access to these records may be modified, if approved by the Department.

(c) The system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(1) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert free or cost per sample]. You can contact the [insert the name of the city or water system] for information on testing and on simple ways to reduce your exposure to lead in drinking water.

(2) To have your water tested for lead, or to get more information about this public health concern, please call [insert the phone number of the city or water system].

(d) The system shall conduct the lead public education program as follows:

(1) In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

(2) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a community water system shall:

(A) Insert notices in each customer's water utility bill containing the information in paragraph (a)(1), along with the following alert on the water bill itself in large print: SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION. A community water system with a billing cycle that does not include a billing within 60 days of the exceedance, or that cannot

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insert information in the bill without making major changes to its billing system, may use a separate mailing as long as it is conducted within 60 days of the exceedance.

(B) Submit the information in paragraph (a)(1) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(C) Deliver pamphlets and/or brochures that contain the public education materials in subparagraphs (a)(1)(B) and (D) to facilities and organizations, including the following:

1. Public schools and/or local school boards;

2. City or county health department;

3. Women, Infants, and Children and/or Head Start Program(s) whenever available;

4. Public and private hospitals and/or clinics;

5. Pediatricians;

6. Family planning clinics; and

7. Local welfare agencies.

(D) Submit the public service announcement in subsection (c) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the system.

(3) A community system shall repeat the tasks in subparagraphs (d)(2)(A),(B) and (C) every 12 months, and the tasks in subparagraph (d)(2)(D) every 6 months for as long as the system has a lead action level exceedance.

(4) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a nontransient-noncommunity system shall deliver the public education materials in paragraphs (a)(1) or (a)(2) as follows:

(A) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(B) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the system. The Department may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

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(5) A nontransient-noncommunity system shall repeat the tasks in paragraph (4) at least once during each calendar year in which the system has a lead action level exceedance.

(6) A system may discontinue the lead public education program if it does not have a lead action level exceedance during the most recent period. The system shall recommence the program pursuant to this section if it subsequently has a lead action level exceedance.

(7) A community water system may apply to the Department, in writing, to use the text in paragraph (a)(2) in lieu of the text in paragraph (a)(1) and to perform the tasks listed in paragraphs (d)(4) and (c)(5) of this section in lieu of the tasks in paragraphs (d)(2) and (d)(3) of this section if:

(A) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(B) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may omit the task contained in subparagraph (d)(2)(D). As long as it distributes notices containing the information contained in paragraph (a)(1) of this section to every household served by the system, such systems may further limit their public education programs as follows:

(A) Systems serving 500 or fewer people may forego the task contained in subparagraph (d)(2)(B). Such a system may limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless notified by the Department in writing that it shall make a broader distribution.

(B) If approved by the Department in writing, a system serving 501 to 3,300 people may omit the task in subparagraph (d)(2)(B) and/or limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(9) A community water system serving 3,300 or fewer people that delivers the lead public education in accordance with paragraph (d)(8)(A) of this section shall repeat these requirements at least once during each calendar year in which the system exceeds the lead action level.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

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1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 7 (sections 64686-64688), new article 7 (section 64687) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64687, 22 CA ADC § 64687

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22 CCR § 64688

§ 64688. Lead Service Line Replacement.

(a) A system shall replace lead service lines if:

(1) It has a lead action level exceedance in tap samples after installing corrosion control and/or source water treatment (whichever sampling occurs later) and/or

(2) It is in violation for failure to install source water treatment or CCT.

(b) Within 6 months after it has a lead action level exceedance, the system shall demonstrate in writing that it has conducted a materials evaluation including that in section 64676 (Sample Site Selection) to identify the initial number of lead service lines in its distribution system, and shall submit both the demonstration and a schedule for complying with subsection (c) to the Department.

(c) Except as provided in subsection (e), a system that is required to conduct lead service line replacement shall annually replace at least 7 percent of the initial number of lead service lines in its distribution system, pursuant to the following.

(1) At the time the lead service line replacement begins, the system shall identify the initial number of lead service lines in its distribution system based on the evaluation in section 64676 (Sample Site Selection).

(2) The first year of lead service line replacement shall begin on the date the system first had a lead action level exceedance subsequent to its installation of CCT and, if required pursuant to section 64686, source water treatment.

(3) The system is not required to replace an individual lead service line if the lead concentration in each and every service line sample from that line, taken pursuant to the section 64687 (Lead Service Line Sampling), is less than or equal to 0.015 mg/L.

(4) The system shall replace that portion of the lead service line that it owns and keep ownership documentation in its files and offer to replace the building owner's portion of the line with the cost being borne by the building owner. If the building owner does not accept the offer, the system shall:

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(A) At least 45 days prior to commencing the partial replacement, notify the resident(s) of all buildings served by the line that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures they may take to minimize their exposure. If the replacement is in conjunction with emergency repairs, the Department will allow a shorter notice, depending on the nature of the emergency and the timing involved. The notice shall be mailed unless an alternate method is approved by the Department, based on the feasibility of insuring that all consumers receive the notice; and

(B) Inform the resident(s) that the system will collect a first flush tap water sample within 72 hours after the partial replacement of the service line has been completed if the resident(s) so desire. If the resident(s) accept the offer, the system shall collect the sample and report the results to the resident(s) and the owner within three business days of receiving the results and to the Department.

(d) Within 12 months after the lead action level exceedance, and every 12 months thereafter, the system shall submit in writing to the Department the number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule, along with the following information to the Department:

(1) The number and location of each lead service line replaced during the previous year of the system's replacement schedule to demonstrate that it has replaced at least 7 percent of the initial lead service lines within the previous 12 months, or a greater number of lines if required by the Department; or

(2) Lead service line sampling results that demonstrate that the lead level from an individual line(s) is less than or equal to 0.015 mg/L, pursuant to section 64689 (Lead Service Line Sampling). The system shall submit the results of the lead service line sampling including the lead levels, location of each lead service line sampled, the sampling method, and the date of sampling. It shall also include the number and location of each lead service line replaced during the previous year. In such cases, the total number of lines replaced and/or that meet the criteria shall equal at least 7 percent of the initial number of lead lines identified or the percentage required by the Department.

(e) A system shall replace lead service lines at a faster rate than that required by subsection (b), taking into account the number of lead service lines in the system, if the Department determines either that this is necessary based on elevated blood lead levels in the population served, or that it is feasible to complete the lead service line replacement program in a shorter time without increasing the water rates to the customers.

(f) A system may cease replacing lead service lines when it has two consecutive periods without a lead action level exceedance. If the system has a lead action level exceedance during any subsequent period, it shall recommence replacing lead service lines.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(1)-(2) and (c)(4), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 8 (sections 64689-64690), new article 8 (sections 64688-64689) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64688, 22 CA ADC § 64688

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64689

§ 64689. Lead Service Line Sampling.

(a) Each lead service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours, but not more than twelve.

(b) Lead service line samples shall be collected in one of the following three ways:

(1) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water to be flushed shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(2) Tapping directly into the lead service line; or

(3) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a change in temperature that would be indicative of water that has been standing in the lead service line.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 8 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (b), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 8 (sections 64689-64690) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64689, 22 CA ADC § 64689

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22 CCR § 64690

§ 64690. Source Water Monitoring Frequency Requirements.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.88(b through e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (c)(1)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690, 22 CA ADC § 64690

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.10

§ 64690.10. Data Reporting.

Each system shall report the following within the first 10 days after the end of each period during which such sampling or monitoring was conducted:

(a) For lead and copper tap sampling:

(1) The results of all tap samples including the location of each site and the associated tier criteria from section 64676 (Sample Site Selection);

(2) The 90th percentile lead and copper concentrations calculated pursuant to section 64678 (Determination of Exceedances of Lead and Copper Action Levels); and

(3) With the exception of the first period of tap sampling, an identification of any site that was not sampled during previous periods, along with an explanation of why the sampling site was changed;

(b) For WQP monitoring, the results of all samples collected and analyzed pursuant to article 4 (WQP Monitoring) of this chapter;

(c) For source water monitoring:

(1) The results for all samples related to source water collected and analyzed under article 6 (Source Water Requirements for Action Level Exceedances) of this chapter; and

(2) With the exception of the first round of sampling related to source water, an identification of any site that was not sampled during previous periods along with an explanation of why the sampling point was changed; and

(d) The results for any samples collected and analyzed for lead and copper or WQPs in addition to those required by this chapter.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. Repealer of former article 9 (sections 64691-64692), new article 9 (sections 64690.10-64690.80) and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690.10, 22 CA ADC § 64690.10

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.80

§ 64690.80. Recordkeeping.

Any system subject to the requirements of this chapter shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Department determinations, and any other information required by this chapter. Each water system shall retain the records required by this section for no fewer than 12 years or two compliance cycles (as defined in Section 64400.20), whichever is longer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690.80, 22 CA ADC § 64690.80

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22 CCR § 64691

§ 64691. Reporting Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.90.

HISTORY

1. New article 9 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 9 (sections 64691-64692) and repealer of section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64691, 22 CA ADC § 64691

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22 CCR § 64692

§ 64692. Recordkeeping Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.91.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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KeyCite Yellow Flag - Negative Treatment
Declined to Follow by Connell v. Superior Court, Cal.App. 3 Dist., November 20, 1997

190 Cal.App.3d 521, 234 Cal.Rptr. 795

CARMEL VALLEY FIRE PROTECTION DISTRICT et al., Plaintiffs and Respondents,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.
RINCON DEL DIABLO MUNICIPAL WATER DISTRICT et al., Plaintiffs and Respondents,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.
COUNTY OF LOS ANGELES, Plaintiff and Respondent,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.

No. B006078., No. B011941., No. B011942.
Court of Appeal, Second District, Division 5, California.
Feb 19, 1987.

SUMMARY

The trial court, in separate proceedings brought by three counties against the state for reimbursement of funds expended by the counties in complying with a state order to provide protective clothing and equipment for county fire fighters, issued writs of mandate compelling the state to reimburse the counties. Previously, the counties had filed test claims with the State Board of Control for reimbursement of similar expenses. The board determined that there was a state mandate and the counties should be reimbursed. The state did not seek judicial review of the board's decision. Thereafter, a local government claims bill, Sen. Bill No. 1261 (Stats. 1981, ch. 1090, p. 4191) was introduced to provide appropriations to pay some of the counties' claims for the state-mandated costs. After various amendments, the legislation was enacted into law without the appropriations. The counties then sought reimbursement by filing petitions for writs of mandate and complaints for declaratory relief. (Superior Court of Los Angeles County, No. C437471, Norman L. Epstein, Judge; No. C514623 and No. C515319, Jack T. Ryburn, Judge.)

In a consolidated appeal, the Court of Appeal affirmed with certain modifications. It held that, by failing to seek judicial review of the board's decision, the state had waived its right to contest the board's finding that the counties' expenditures were state mandated. Similarly, it held that the state was collaterally estopped from attacking the board's findings. It also held that the executive orders requiring the expenditures constituted the type of "program" that is subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6. The court also held that the trial courts had not ordered an appropriation in violation of the separation of powers doctrine, and that the trial courts correctly determined that certain legislative disclaimers, findings, and budget control language did not exonerate the state from its constitutionally and statutorily imposed obligation to reimburse the counties' state-mandated costs. Further, the court held that the trial courts properly authorized the counties to satisfy their claims by offsetting fines and forfeitures due to the state, and that the counties were entitled to interest. (Opinion by Eagleson, J., with Ashby, Acting P. J., and Hastings, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
Estoppel and Waiver § 23--Waiver--Trial and Appeal--Failure to Seek Judicial Review of Administrative Decision--Waiver of Right to Contest Findings.
In a proceeding by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state waived its right to contest findings made by the State Board of Control in a previous proceeding. The board found that the costs were state-mandated and that the county was entitled to reimbursement. The state failed to seek judicial review of the board's decision, and the statute of limitations applicable to such review had passed. Moreover, the state, through its agents, had acquiesced in the board's findings by seeking an appropriation to satisfy the validated claims, which, however, was rebuffed by the Legislature.

(2)
Estoppel and Waiver § 19--Waiver--Requisites.
Waiver occurs where there is an existing right; actual or constructive knowledge of its existence; and either an actual intention to relinquish it, or conduct so inconsistent with an intent to enforce the right as to induce a reasonable belief that it has been waived. A right that is waived is lost forever. The doctrine of waiver applies to rights and privileges afforded by statute.

[See **Cal.Jur.3d,** Estoppel and Waiver § 21; **Am.Jur.2d,** Estoppel and Waiver § 154.]

(3a, 3b, 3c, 3d)
Judgments § 81--Res Judicata--Collateral Estoppel--County's Action for Reimbursement of State-mandated Costs--Findings of State Board of Control.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state was collaterally estopped from attacking the findings made, in a previous proceeding, by the State Board of Control that the costs were state-mandated and that the county was entitled to reimbursement. The issues were fully litigated before the board. Similarly, although the state was not a party to the board hearings, it was in privity with those state agencies which did participate. Moreover, a determination of conclusiveness would not work an injustice.

(4)
Judgments § 81--Res Judicata--Collateral Estoppel--Elements.
In order for the doctrine of collateral estoppel to apply, the issues in the two proceedings must be the same, the prior proceeding must have resulted in a final judgment on the merits, and the parties or their privies must be involved.

(5)
Judgments § 84--Res Judicata--Collateral Estoppel--Identity of Parties--Privity--Governmental Agents.
The agents of the same government are in privity with each other for purposes of collateral estoppel, since they represent not their own rights but the right of the government.

(6)
Judgments § 96--Res Judicata--Collateral Estoppel--Matters Concluded-- Questions of Law.
A prior judgment on a question of law decided by a court is conclusive in a subsequent action between the same parties where both causes involved arose out of the same subject matter or transaction, and where holding the judgment to be conclusive will not result in an injustice.

(7)
State of California § 11--Fiscal Matters--Reimbursement to County for State-mandated Costs--New Programs.
A "new program," for purposes of determining whether the program is subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6, is one which carries out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

(8)
State of California § 7--Actions--Reimbursement of County Funds for State-mandated Costs--New Programs.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with state executive orders to provide protective clothing and equipment to county fire fighters, the trial court properly determined that the executive orders constituted the type of "new program" that was subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6. Fire protection is a peculiarly governmental function. Also, the executive orders manifest a state policy to provide updated equipment to all fire fighters, impose unique requirements on local governments, and do not apply generally to all residents and entities in the state, but only to those involved in fire fighting.

(9)
Constitutional Law § 37--Doctrine of Separation of Powers--Violations of Doctrine--Judicial Order of Appropriation.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial

court's judgment granting the writ was not in violation of the separation of powers doctrine. The court order did not directly compel the Legislature to appropriate funds or to pay funds not yet appropriated, but merely affected an existing appropriation.

(10)
Constitutional Law § 40--Distribution of Governmental Powers--Between Branches of Government--Judicial Power and Its Limits--Order Directing Treasurer to Pay on Already Appropriated Funds.
Once funds have been appropriated by legislative action, a court transgresses no constitutional principle when it orders the State Controller or other similar official to make appropriate expenditures from such funds. Thus, a judgment which ordered the State Controller to draw warrants and directed the State Treasurer to pay on already-appropriated funds permissibly compelled performance of a ministerial duty.

(11)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to County for State-mandated Costs.
Appropriations affected by a court order need not specifically refer to the particular expenditure in question in order to be available. Thus, in a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the funds appropriated for the Department of Industrial Relations for the prevention of industrial injuries and deaths of state workers were available for reimbursement, despite the fact that the funds were not specifically appropriated for reimbursement. The funds were generally related to the nature of costs incurred by the county.

(12a, 12b)
Fires and Fire Districts § 2--Statutes and Ordinances--County Compliance With State Executive Order to Provide Protective Equipment--Federal Mandate.
A county's purchase of protective clothing and equipment for its fire fighters was not the result of a federally mandated program so as to relieve the state of its obligation (Cal. Const., art. XIII B, § 6) to reimburse the county for the cost of the purchases. The county had made the purchase in compliance with a state executive order. The federal government does not have jurisdiction over local fire departments and there are no applicable federal standards for local government structural fire fighting clothing and equipment. Hence, the county's obedience to the state executive orders was not federally mandated.

(13)
Statutes § 20--Construction--Judicial Function--Legislative Declarations.
The interpretation of statutory language is purely a judicial function. Legislative declarations are not binding on the courts and are particularly suspect when they are the product of an attempt to avoid financial responsibility.

(14a, 14b)
Statutes § 10--Title and Subject Matter--Single Subject Rule.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters (Cal. Admin. Code, tit. 8, §§ 3401-3409), the trial court properly invalidated, as violating the single subject rule, the budget control language of Stats. 1981, ch. 1090, § 3. The express purpose of ch. 1090 was to increase funds available for reimbursing certain claims. The budget control language, on the other hand, purported to make the reimbursement provisions of Rev. & Tax. Code, § 2207, and former Rev. & Tax. Code, § 2231, unavailable to the county. Because the budget control language did not reasonably relate to the bill's stated purpose, it was invalid.

(15)
Statutes § 10--Title and Subject Matter--Single Subject Rule.
The single subject rule essentially requires that a statute have only one subject matter and that the subject be clearly expressed in a statute's title. The rule's primary purpose is to prevent “logrolling” in the enactment of laws, which occurs where a provision unrelated to a bill's main subject matter and title is included in it with the hope that the provision will remain unnoticed and unchallenged. By invalidating these unrelated clauses, the single subject rule prevents the passage of laws which might otherwise not have passed had the legislative mind been directed to them. However, in order to minimize judicial interference in the Legislature's activities, the single subject rule is to be construed liberally. A provision violates the rule only if it does not promote the main purpose of the act or does

not have a necessary and natural connection with that purpose.

(16)
Statutes § 5--Operation and Effect--Retroactivity--Reimbursement to County for State-mandated Costs.
The budget control language of Stats. 1981, ch. 1090, § 3, which purported to make the reimbursement provisions of Rev. & Tax. Code, § 2207 and former Rev. & Tax. Code, § 2231, unavailable to a county seeking reimbursement (Cal. Const., art. XIII B, § 6) for expenditures made in purchasing state-required protective clothing and equipment for county fire fighters (Cal. Admin. Code, tit. 8, §§ 3401-3409), was invalid as a retroactive disclaimer of the county's right to reimbursement for debts incurred in prior years.

(17)
State of California § 13--Fiscal Matters--Limitations on Disposal-- Reimbursement to Counties for State-mandated Costs.
The budget control language of § 28.40 of the 1981 Budget Act and § 26.00 of the 1983 and 1984 Budget Acts did not exonerate the state from its constitutional and statutory obligations to reimburse a county for the expenses incurred in complying with a state mandate to purchase protective clothing and equipment for county fire fighters. The language was invalid in that it violated the single subject rule, attempted to amend existing statutory law, and was unrelated to the Budget Acts' main purpose of appropriating funds to support the annual budget.

(18)
Constitutional Law § 4--Legislative Power to Create Workers' Compensation System--Effect on County's Right to Reimbursement.
Cal. Const., art. XIV, § 4, which vests the Legislature with unlimited plenary power to create and enforce a complete workers' compensation system, does not affect a county's right to state reimbursement for costs incurred in complying with state-mandated safety orders.

(19)
Constitutional Law § 7--Mandatory, Directory, and Self-executing Provisions--Subvention Provisions--County Reimbursement for State-mandated Costs.
The subvention provisions of Cal. Const., art. XIII B, § 6, operate so as to require the state to reimburse counties for state-mandated costs incurred between January 1, 1975, and June 30, 1980. The amendment, which became effective on July 1, 1980, provided that the Legislature "may, but need not," provide reimbursement for mandates enacted before January 1, 1975. Nevertheless, the Legislature must reimburse mandates passed after that date, even though the state did not have to begin reimbursement until the effective date of the amendment.

(20)
Mandamus and Prohibition § 5--Mandamus--Conditions Affecting Issuance--Exhaustion of Administrative Remedies--County Reimbursement for State-mandated Costs.
A county's right of action in traditional mandamus to compel reimbursement for state-mandated costs did not accrue until the county had exhausted its administrative remedies. The exhaustion of remedies occurred when it became unmistakably clear that the legislative process was complete and that the state had breached its duty to reimburse the county.

(21)
Mandamus and Prohibition § 13--Mandamus--Conditions Affecting Issuance--Existence and Adequacy of Other Remedy.
A party seeking relief by mandamus is not required to exhaust a remedy that was not in existence at the time the action was filed.

(22a, 22b)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--County's Right to Offset Fines and Forfeitures Due to State.
In a proceeding by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment for county fire fighters, the trial court did not err in authorizing the county to satisfy its claims by offsetting fines and forfeitures due to the state. The order did not impinge upon the Legislature's exclusive power to appropriate funds or control budget matters.

(23)

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Equity § 5--Scope and Types of Relief--Offset.
The right to offset is a long-established principle of equity. Either party to a transaction involving mutual debits and credits can strike or balance, holding himself owing or entitled only to the net difference. Although this doctrine exists independent of statute, its governing principle has been partially codified in Code Civ. Proc., § 431.70 (limited to cross-demands for money).

(24)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--State's Use of Statutory Offset Authority.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial court did not err in enjoining the exercise of the state's statutory offset authority (Gov. Code, § 12419.5) until the county was fully reimbursed. In view of the state's manifest reluctance to reimburse, and its otherwise unencumbered statutory right of offset, the trial court was well within its authority to prevent this method of frustrating the county's collection efforts from occurring.

(25)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--State's Right to Revert or Dissipate Undistributed Appropriations.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial court properly enjoined, and was not precluded by Gov. Code, § 16304.1, from enjoining, the state from directly or indirectly reverting the reimbursement award sum from the general fund line item accounts, and from otherwise dissipating that sum in a manner that would make it unavailable to satisfy the court's judgment in favor of the county.

(26)
Parties § 2--Indispensable Parties--County Auditor Controller--County Action to Collect Reimbursement From State.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the county auditor-controller was not an indispensable party whose absence would result in a loss of the trial court's jurisdiction. The auditor-controller was an officer of the county and was subject to the direction and control of the county board of supervisors. He was indirectly represented in the proceedings because his principal, the county, was the party litigant. Additionally, he claimed no personal interest in the action and his pro forma absence in no way impeded complete relief

(27)
Parties § 2--Indispensable Parties--Fines and Forfeitures--County Action to Collect Reimbursement From State.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for costs expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the funds created by the collected fines and forfeitures which the county was allowed to offset to satisfy its claims against the state were not “indispensable parties” to the litigation. The action was not an in rem proceeding, and the ownership of a particular stake was not in dispute. Complete relief could be afforded without including the specified funds as a party.

(28)
Interest § 4--Interest on Judgments--County Action for Reimbursement of State-mandated Costs--State Reliance on Invalid Statute.
An invalid statute voluntarily enacted and promulgated by the state is not a defense to its obligation to pay interest on damages under Civ. Code, § 3287, subd. (a). Thus, in an action brought by a county for writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state could not avoid its obligation to pay interest on the funds by relying on invalid budget control language which purported to restrict payment on reimbursement claims.

(29)
Appellate Review § 127--Review--Scope and Extent--Interpretation of Statutes.
An appellate court is not limited by the interpretation of statutes given by the trial court.

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(30)
Appellate Review § 162--Determination of Disposition of Cause-- Modification--Action Against State--Appropriation.
In an action against the state, an appellate court is empowered to add a directive that the trial court order be modified to include charging orders against funds appropriated by subsequent budget acts.

COUNSEL
John K. Van de Kamp, Attorney General, N. Eugene Hill, Assistant Attorney General, Marilyn K. Mayer and Carol Hunter, Deputy Attorneys General, for Defendants and Appellants.
De Witt Clinton, County Counsel, Amanda F. Susskind, Deputy County Counsel, Ross & Scott, William D. Ross and Diana P. Scott, for Plaintiffs and Respondents.

EAGLESON, J.

These consolidated appeals arise from three separate trial court proceedings concerning the heretofore unsuccessful efforts of various local agencies to secure reimbursement of state-mandated costs.

Case No. 2d Civ. B006078 (Carmel Valley et al. case) was the first matter decided by the trial court. The memorandum of decision in that case was judicially noticed by the trial court which heard the consolidated matters in 2d Civ. B011941 (Rincon et al. case) and 2d Civ. B011942 (County of Los Angeles case). Issues common to all three cases will be discussed together ***530** under the County of Los Angeles appeal, while issues unique to the other two appeals will be considered separately.

We identify the parties to the various proceedings in footnote 1.[1] For literary convenience, however, we will refer to all appellants as the State and all respondents as the County unless otherwise indicated.

Appeal In Case No. 2 Civil B011942

(County of Los Angeles Case)

Facts and Procedural History

County employs fire fighters for whom it purchased protective clothing and equipment, as required by title 8, California Administrative Code, sections 3401-3409, enacted in 1978 (executive orders). County argues that it is entitled to State reimbursement for these expenditures because they constitute a state-mandated "new program" or "higher level of service." County relies on Revenue and Taxation Code section 2207[2] and former ***531** section 2231,[3] and California Constitution, article XIII B, section 6[4] to support its claim.

County filed a test claim with the State Board of Control (Board) for these costs incurred during fiscal years 1978-1979 and 1979-1980.[5] After hearings were held on the matter, the Board determined on November 20, 1979, that there was a state mandate and that County should be reimbursed. State did not seek judicial review of this quasi-judicial decision of the Board.

Thereafter, a local government claims bill, Senate Bill Number 1261 (Stats. 1981, ch. 1090, p. 4191) (S.B. 1261) was introduced to provide appropriations to pay some of County's claims for these state-mandated costs. This bill was amended by the Legislature to delete all appropriations for the payment of these claims. Other claims of County not provided for in S.B. 1261 were contained in another local government claims bill, Assembly Bill Number 171 (Stats. 1982, ch. 28, p. 51) (A.B. 171). The appropriations in this bill were deleted by the Governor. Both pieces of legislation, sans appropriations, were enacted into law.[6]

On September 21, 1984, following these legislative rebuffs, County sought reimbursement by filing a petition for writ of mandate (Code Civ. Proc., § 1085) and complaint for declaratory relief. After appropriate responses were filed and a hearing was held, the court executed a judgment on February 6, 1985, granting a peremptory writ of mandate. A writ of mandate was issued and other findings and orders made. It is from this judgment of ***532** February 6, 1985, that State appeals. The relevant portions of the judgment are set forth verbatim below.[7] ***533**

Contentions

State advances two basic contentions. It first asserts that the costs incurred by County are not state mandated because they are not the result of a "new program," and do not provide a "higher level of service." Either or both of these requirements are the sine qua non of reimbursement. Second, assuming a "new program" or "higher level of service" exists, portions of the trial court order aimed at

assisting the reimbursement process were made in excess of the court's jurisdiction.

These contentions are without merit. We modify and affirm all three judgments.

Discussion

I

Issue of State Mandate

The threshold question is whether County's expenditures are state mandated. The right to reimbursement is triggered when the local agency incurs "costs mandated by the state" in either complying with a "new program" or providing "an increased level of service of an existing program." [8] State advances many theories as to why the Board erred in concluding that these expenditures are state-mandated costs. One of these arguments is whether the executive orders are a "new program" as that phrase has been recently defined by our Supreme Court in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202]. ***534**

As we shall explain, State has waived its right to challenge the Board's findings and is also collaterally estopped from doing so. Additionally, although State is not similarly precluded from raising issues presented by the *State of California* case, we conclude that the executive orders are a "new program" within the meaning of article XIII B, section 6.

A. *Waiver*

([1a])We initially conclude that State has waived its right to contest the Board's findings. ([2])Waiver occurs where there is an existing right; actual or constructive knowledge of its existence; and either an actual intention to relinquish it, or conduct so inconsistent with an intent to enforce the right as to induce a reasonable belief that it has has been waived. (*Medico-Dental etc. Co. v. Horton & Converse* (1942) 21 Cal.2d 411, 432 [132 P.2d 457]; *Loughan v. Harger-Haldeman* (1960) 184 Cal.App.2d 495, 502-503 [7 Cal.Rptr. 581].) A right that is waived is lost forever. (*L.A. City Sch. Dist. v. Landier Inv. Co.* (1960) 177 Cal.App.2d 744, 752 [2 Cal.Rptr. 662].) The doctrine of waiver applies to rights and privileges afforded by statute. (*People v. Murphy* (1962) 207 Cal.App.2d 885, 888 [24 Cal.Rptr. 803].)

([1b])State now contends to be an aggrieved party and seeks to dispute the Board's findings. However it failed to seek judicial review of that November 20, 1979 decision (Code Civ. Proc., § 1094.5) as authorized by former Revenue and Taxation Code section 2253.5. The three-year statute of limitations applicable to such review has long since passed. (*Green v. Obledo* (1981) 29 Cal.3d 126, 141, fn. 10 [172 Cal.Rptr. 206, 624 P.2d 256]; Code Civ. Proc., § 338, subd. 1.)

In addition, State, through its agents, acquiesced in the Board's findings by seeking an appropriation to satisfy the validated claims. (Former Rev. & Tax. Code, § 2255, subd. (a).) On September 30, 1981, S.B. 1261 became law. On February 12, 1982, A.B. 171 was enacted. Appropriations had been stripped from each bill. State did not then seek review of the Board determinations even though time remained before the three-year statutory period expired. This inaction is clearly inconsistent with any intent to contest the validity of the Board's decision and results in a waiver.

B. *Administrative Collateral Estoppel*

([3a])We next conclude that State is collaterally estopped from attacking the Board's findings. ([4])Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. In order for the doctrine to apply, the issues in the two proceedings must ***535** be the same, the prior proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved. (*People v. Sims* (1982) 32 Cal.3d 468, 484 [186 Cal.Rptr. 77, 651 P.2d 321].)

The doctrine was extended in *Sims* to apply to a final adjudication of an administrative agency of statutory creation so as to preclude relitigation of the same issues in a subsequent criminal case. Our Supreme Court held that collateral estoppel applies to such prior adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) it resolved disputed issues properly before it; and (3) all parties were provided with the opportunity to fully and fairly litigate their claims. (*Id.* at p. 479.) All of the elements of administrative collateral estoppel are present here.

([3b])The Board was created by the state Legislature to exercise quasi-judicial powers in adjudging the validity

of claims against the State. (*County of Sacramento v. Loeb* (1984) 160 Cal.App.3d 446, 452 [206 Cal.Rptr. 626].) At the time of the hearings, the Board proceedings were the sole administrative remedy available to local agencies seeking reimbursement for state-mandated costs. (Former Rev. & Tax. Code, § 2250.) Board examiners had the power to administer oaths, examine witnesses, issue subpoenas, and receive evidence. (Gov. Code, § 13911.) The hearings were adversarial in nature and allowed for the presentation of evidence by the claimant, the Department of Finance, and any other affected agency. (Former Rev. & Tax. Code, § 2252.)

The record indicates that the state mandate issues in this case were fully litigated before the Board. A representative of the state Division of Occupational Safety and Health and the Department of Industrial Relations testified as to why County's costs were not state mandated. Representatives of the various claimant fire districts in turn offered testimony contradicting that view. The proceedings culminated in a verbatim transcript and a written statement of the basis for the Board's decision.

State complains, however, that some of the traditional elements of the collateral estoppel doctrine are missing. In particular, State argues that it was not a party to the Board hearings and was not in privity with those state agencies which did participate.

([5])"[T]he courts have held that the agents of the same government are in privity with each other, since they represent not their own rights but the right of the government. [Fn. omitted.]" (*Lerner v. Los Angeles City Board of Education* (1963) 59 Cal.2d 382, 398 [29 Cal.Rptr. 657, 380 P.2d 97].) As we stated in our introduction of the parties in this case, the party ***536** known as "State" is merely a shorthand reference to the various state agencies and officials named as defendants below. Each of these defendants is an agent of the State of California and had a mutual interest in the Board proceedings. They are thus in privity with those state agencies which did participate below (e.g., Occupational Safety and Health Division).

It is also clear that even though the question of whether a cost is state mandated is one of law (*City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 781 [200 Cal.Rptr. 642]), subsequent litigation on that issue is foreclosed here. ([6])A prior judgment on a question of law decided by a court is conclusive in a subsequent action between the same parties where both causes involved arose out of the same subject matter or transaction, and where holding the judgment to be conclusive will not result in an injustice. (*City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 230 [123 Cal.Rptr. 1, 537 P.2d 1250]; *Beverly Hills Nat. Bank v. Glynn* (1971) 16 Cal.App.3d 274, 286-287 [93 Cal.Rptr. 907]; Rest.2d Judgments, § 28, p. 273.) [9]

([3d])Here, the basic issues of state mandate and the amount of reimbursement arose out of County's required compliance with the executive orders. In either forum-Board or court-the claims and the evidentiary and legal determination of their validity would be considered in similar fashion.

Furthermore, a determination of conclusiveness would not work an injustice. As we have noted, the Board was statutorily created to consider the validity of the various claims now being litigated. Processing of reimbursement claims in this manner was the only administrative remedy available to County. If we were to grant State's request and review the Board's determination de novo, we would, in any event, adhere to the well-settled principle of affording "great weight" to "the contemporaneous administrative construction of the enactment by those charged with its enforcement ...." (*Coca-Cola Co. v. State Bd. of Equalization* (1945) 25 Cal.2d 918, 921 [156 P.2d 1].)

There is no policy reason to limit the application of the collateral estoppel doctrine to successive court proceedings. In *City and County of San Francisco v. Ang* (1979) 97 Cal.App.3d 673, 679 [159 Cal.Rptr. 56], the doctrine was applied to bar relitigation in a subsequent civil proceeding of a zoning issue previously decided by a city board of permit appeals. We similarly hold that the questions of law decided by the Board are binding in all of the subsequent civil proceedings presented here. State therefore is collaterally ***537** estopped to raise the issues of state mandate and amount of reimbursement in this appeal.

C. *Executive Orders-A "New Program" Under Article XIII B, Section 6*

([7])The recent decision by our Supreme Court in *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d at p. 49 presents a new issue not previously considered by the Board or the trial court. That question is whether

the executive orders constitute the type of "program" that is subject to the constitutional imperative of subvention under article XIII B, section 6. [10] We conclude that they are.

In *State of California*, the Court concluded that the term "program" has two alternative meanings: "programs that carry out the governmental function of providing services to the public, *or* laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Id.* at p. 56, italics added.) Although only one of these findings is necessary to trigger reimbursement, both are present here.

([8])First, fire protection is a peculiarly governmental function. (*County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481 [105 Cal.Rptr. 374, 503 P.2d 1382].) "Police and fire protection are two of the most essential and basic functions of local government." (*Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107 [133 Cal.Rptr. 649].) This classification is not weakened by State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classical governmental function. [11] ***538**

The second, and alternative, prong of the *State of California* definition is also satisfied. The executive orders manifest a state policy to provide updated equipment to all fire fighters. Indeed, compliance with the executive orders is compulsory. The requirements imposed on local governments are also unique because fire fighting is overwhelmingly engaged in by local agencies. Finally, the orders do not apply generally to all residents and entities in the State but only to those involved in fire fighting.

These facts are distinguishable from those presented in *State of California*. There, the court held that a state-mandated increase in workers' compensation benefits did not require state subvention because the costs incurred by local agencies were only an incidental impact of laws that applied generally to all state residents and entities (i.e., to all workers and all governmental and nongovernmental employers). Governmental employers in that setting were indistinguishable from private employers who were obligated through insurance or direct payment to pay the statutory increases.

State of California only defined the scope of the word "program" as used in California Constitution, article XIII B, section 6. We apply the same interpretation to former Revenue and Taxation Code section 2231 even though the statute was enacted much earlier. The pertinent language in the statute is identical to that found in the constitutional provision and no reason has been advanced to suggest that it should be construed differently. In any event, a different interpretation must fall before a constitutional provision of similar import. (*County of Los Angeles v. Payne* (1937) 8 Cal.2d 563, 574 [66 P.2d 658].)

II

Issue of Whether Court Orders Exceeded Its Jurisdiction

A. *The Court Has Not Ordered an Appropriation in Violation of the Separation of Powers Doctrine*

([9])State begins its general attack on the judgment by citing the longstanding principle that a court order which directly compels the Legislature to appropriate funds or to pay funds not yet appropriated violates the separation of powers doctrine. (Cal. Const., art. III, § 3; art. XVI, § 7; *Mandel v. Myers* (1981) 29 Cal.3d 531, 540 [174 Cal.Rptr. 841, 629 P.2d 935].) [12] State ***539** observes (and correctly so) that the relevant constitutional (art. XIII B, § 6) and statutory (Rev. & Tax. Code, § 2207 & former § 2231) provisions are not appropriations measures. (See *City of Sacramento v. California State Legislature* (1986) 187 Cal.App.3d 393, 398 [231 Cal.Rptr. 686].) Since State otherwise discerns no manifest legislative intent to appropriate funds to pay County's claims (*City & County of S. F. v. Kuchel* (1948) 32 Cal.2d 364, 366 [196 P.2d 545]), it concludes that the judgment unconstitutionally compels performance of a legislative act.

State further argues that the judiciary's ability to reach an existing agency-support appropriation (State Department of Industrial Relations) (fn. 7, ¶ 1, *ante*) has been approved in only two contexts. First, the court can order payment from an existing appropriation, the expenditure of which has been legislatively prohibited by an unconstitutional or unlawful restriction. (*Committee to Defend Reproductive Rights v. Cory* (1982) 132 Cal.App.3d 852, 856 [183 Cal.Rptr. 475].) Second, once an adjudication has finally determined the rights of the

parties, the court may compel satisfaction of the judgment from a current unexpended, unencumbered appropriation which administrative agencies routinely have used for the purpose in question. (*Mandel v. Myers*, *supra.*, 29 Cal.3d at p. 544.) State insists that these facts are not present here.

County rejoins that a writ of traditional mandate (Code Civ. Proc., § 1085) is the correct method of compelling State to perform a clear and present ministerial legal obligation. (*County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at pp. 451-452.) The ministerial obligation here is contained in California Constitution, article XIII B, section 6 and in Revenue and Taxation Code section 2207 and former section 2231. These provisions require State to reimburse local agencies for state-mandated costs.

We reject State's general characterization of the judgment by noting that it only affects an existing appropriation. It declares (fn. 7, ¶ 1, *ante*) that only funds already "*appropriated* by the Legislature for the State Department of Industrial Relations for the Prevention of Industrial Injuries and Deaths of California Workers within the Department's General Fund" shall be spent for reimbursement of County's state-mandated costs. (Italics added.) There is absolutely no language purporting to require the Legislature to enact appropriations or perform any other act that might violate separation of powers principles. ([10])By simply ordering the State Controller to draw warrants and directing the State Treasurer to pay on already appropriated funds (fn. 7, ¶ 2, *ante*), the judgment permissibly compels performance of a ministerial duty: "[O]nce funds have already been appropriated by legislative action, a court transgresses no constitutional principle when it orders the State Controller or other similar official to make appropriate expenditures ***540** from such funds. [Citations.]" (*Mandel v. Myers*, *supra.*, 29 Cal.3d at p. 540.)

As we will discuss in further detail below, the subject funds (fn. 7, ¶ 1, *ante*) were saddled with an unconstitutional restriction (fn. 7, ¶ 7, *ante*). However, *Mandel* establishes that such a restriction does not necessarily infect the entire appropriation. There, the Legislature had improperly prohibited the use of budget funds to pay a court-ordered and administratively approved attorney's fees award. The court reasoned that as long as appropriated funds were "reasonably available for the expenditures in question, the separation of powers doctrine poses no barrier to a judicial order directing the payment of such funds." (*Id.* at p. 542.) The court went on to find that money in a general "operating expenses and equipment" fund was, by both the Budget Act's terms and prior administrative practice, reasonably available to pay the attorney's fees award.

Contrary to State's argument, *Mandel* does not require that past administrative practice support a judgment for reimbursement from an otherwise available appropriation. Although there was evidence of a prior administrative practice of paying counsel fees from funds in the "operating expenses and equipment" budget, this fact was not the main predicate of the court's holding. Rather, the decisive factor was that the budget item in question functioned as a "catchall" appropriation in which funds were still reasonably available to satisfy the State's adjudicated debt. (*Id.* at pp. 543-544.)

Another illustration of this principle is found in *Serrano v. Priest* (1982) 131 Cal.App.3d 188 [182 Cal.Rptr. 387]. Plaintiffs in that case secured a judgment against the State of California for $800,000 in attorney's fees. The judgment was not paid, and subsequent proceedings were brought against State to satisfy the judgment. The trial court directed the State Controller to pay the $800,000 award, plus interest, from funds appropriated by the Legislature for "operating expenses and equipment" of the Department of Education, Superintendent of Public Instruction and State Board of Education. (*Id.* at p. 192.) This court affirmed that order even though there was no evidence that the agencies involved had ever paid court-ordered attorney's fees from that portion of the budget. Relying on *Mandel*, we concluded that funds were reasonably available from appropriations enacted in the Budget Act in effect at the time of the court's order, as well as from similar appropriations in subsequent budget acts.

([11])State also incorrectly asserts that the appropriations affected by the court's order must specifically refer to the particular expenditure in question in order to be available. This notion was summarily dismissed in *Mandel v. Myers*, *supra.*, 29 Cal.3d at pp. 543-544. Likewise, in *Committee to Defend* ***541** *Reproductive Rights v. Cory*, *supra.*, 132 Cal.App.3d at pp. 857-858, the court decreed that payments for Medi-Cal abortions could properly be ordered from monies appropriated for other Medi-Cal services, even though this use had been specifically prohibited by the Legislature.

Applying these various principles here, we note that the judgment (fn. 7, ¶ 2, *ante*) identified funds in account numbers 8350-001-001, 8350-001-452, 8350-001-453 and 8350-001-890 as being available for reimbursement. Within these 1984-1985 account appropriations for the Department of Industrial Relations were monies for Program 40, the Prevention of Industrial Injuries and Deaths of California Workers. The evidence clearly showed that the remaining balances on hand would cover the cost of reimbursement. Since it is conceded that the fire fighting protective clothing and equipment in this case was purchased to prevent deaths and injuries to fire fighters, these funds, although not specifically appropriated for the reimbursement in question, were generally related to the nature of costs incurred by County and are therefore reasonably available for reimbursement.

B. *Legislative Disclaimers, Findings and Budget Control Language Are No Defense to Reimbursement*

As a general defense against the order to reimburse, State insists that the Legislature has itself concluded that the claimed costs are not reimbursable. This determination took the combined form of disclaimers, findings and budget control language. State interprets this self-serving legislation, as well as the legislative and gubernatorial deletions, as forever sweeping away State's obligation to reimburse the state-mandated costs at issue. Consequently, any order that ignores these restrictions on payment would amount to a court-ordered appropriation. As we shall conclude, these efforts are merely transparent attempts to do indirectly that which cannot lawfully be done directly.

The seminal legislation that gave rise to the 1978 executive orders was enacted by Statutes 1973, chapter 993, and is labeled the California Occupational Safety and Health Act (Cal/OSHA). It is modeled after federal law and is designed to assure safe working conditions for all California workers. A legislative disclaimer appearing in section 106 of that bill reads: "No appropriation is made by this act ... for the reimbursement of any local agency for any costs that may be incurred by it in carrying on any program or performing any service required to be carried on ...." The stated reason for this decision not to appropriate was that the cost of implementing the act was "minimal on a statewide basis in relation to the effect on local tax rates." (Stats. 1973, ch. 993, § 106, p. 1954.) ***542**

Again, in 1974, the Legislature stated: "Notwithstanding Section 2231 of the Revenue and Taxation Code, there shall be no reimbursement pursuant to this section, nor shall there be an appropriation made by this act, because the Legislature finds that this act and any executive regulations or safety orders issued pursuant thereto merely implement federal law and regulations." (Stats. 1974, ch. 1284, § 106, p. 2787.) This statute amended section 106 of Statutes 1973, chapter 993, and was a post facto change in the stated legislative rationale for not providing reimbursement.

Presumably because of the large number of reimbursement claims being filed, the Legislature subsequently used budget control language to confirm that compliance with the executive orders should not trigger reimbursement. Some of this legislation was effective September 30, 1981, as part of a local agency and school district reimbursement bill. The control language provided that "[t]he Board of Control shall not accept, or submit to the Legislature, any more claims pursuant to ... Sections 3401 to 3409, inclusive, of Title 8 of the California Administrative Code." (Stats. 1981, ch. 1090, § 3, p. 4193.) [13]

Further control language was inserted in the 1981, 1983 and 1984 Budget Acts. (Stats. 1981, ch. 99, § 28.40, p. 606; Stats. 1983, ch. 324, § 26.00, p. 1504; Stats. 1984, ch. 258, § 26.00.) This language prohibits encumbering appropriations to reimburse costs incurred under the executive orders, except under certain limited circumstances.

([12a])State first challenges the trial court's finding that expenditures mandated by the executive orders were not the result of a federally mandated program (fn. 7, ¶ 8, *ante*), despite the legislative finding in Statutes 1974, chapter 1284, section 106. We agree with the court's decision that there was no federal mandate.

The significance of this no-federal-mandate finding is revealed by examining past changes in the statutory definition of state-mandated costs. As thoroughly discussed in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182, 196-197 [203 Cal.Rptr. 258] disapproved on other grounds in *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d at p. 58, fn. 10, the concept of federally mandated costs has provided local agencies with a financial escape valve ever since passage

of the "Property Tax Relief Act of 1972." (Stats. 1972, ch. 1406, § 1, p. 2931.) That act limited local governments' power to levy property taxes, while requiring that they be reimbursed by the State for providing compulsory increased levels of service or ***543** new programs. However, under Revenue and Taxation Code section 2271, "costs mandated by the federal government" were not subject to reimbursement and local governments were permitted to levy taxes in addition to the maximum property tax rate to pay such costs.

On November 6, 1979, the limitation on local government's ability to raise property taxes, and the duty of the State to reimburse for state-mandated costs, became a part of the California Constitution through the initiative process. Article XIII B, section 6, enacted at that time, directs state subvention similar in nature to that required by the preexisting provisions of Revenue and Taxation Code section 2207 and former section 2231. As a defense against this duty to reimburse local agencies, the Legislature began to insert disclaimers in bills which mandated costs on local agencies. It also amended Revenue and Taxation Code section 2206 to expand the definition of nonreimbursable "costs mandated by the federal government" to include the following: "costs resulting from enactment of a state law or regulation where failure to enact such law or regulation to meet specific federal program or service requirements would result in substantial monetary penalties or loss of funds to public or private persons in the state."

In applying this definition here, State offers nothing more than the bare legislative finding contained in Statutes 1974, chapter 1284, section 106. State contends that a federally mandated cost cannot, by definition, be a state-mandated cost. Therefore, if the cost is federally mandated, local agency reimbursement is not required. ([13])**(See fn. 14.)** Although State's argument is correct in the abstract, neither the facts nor federal law supports the underlying assumption that there is a federal mandate. [14]

([12b])Both the Board and the court had in evidence a letter from a responsible official of the federal Occupational Safety and Health Administration (OSHA). The letter emphasizes the independence of state and federal OSHA standards: "OSHA does not have jurisdiction over the fire departments of any political subdivision of a state whether the state has elected to have its own state plan under the OSHA act or not .... [¶] More specifically, in 1978, the State of California promulgated standards applicable to fire departments in California. Therefore, California standards, rather than ***544** federal OSHA standards, are applicable to fire departments in that state ...." This theme is also reflected in a section of OSHA which expressly disclaims jurisdiction over local agencies such as County. (29 U.S.C. § 652(5).) Accordingly, as a matter of law, there are no federal standards for local government structural fire fighting clothing and equipment.

In short, while the Legislature's enactment of Cal/OSHA to comply with federal OSHA standards is commendable, it certainly was not compelled. Consequently, County's obedience to the 1978 executive orders is not federally mandated.

([14a])The trial court also properly invalidated the budget control language in Statutes 1981, chapter 1090, section 3 (fn. 7, ¶ 7, *ante*) because it violated the single subject rule. [15] This legislative restriction purported to make the reimbursement provisions of Revenue and Taxation Code section 2207 and former section 2231 unavailable to County.

([15])The single subject rule essentially requires that a statute have only one subject matter and that the subject be clearly expressed in the statute's title. The rule's primary purpose is to prevent "log-rolling" in the enactment of laws. This disfavored practice occurs where a provision unrelated to a bill's main subject matter and title is included in it with the hope that the provision will remain unnoticed and unchallenged. By invalidating these unrelated clauses, the single subject rule prevents the passage of laws which otherwise might not have passed had the legislative mind been directed to them. (*Planned Parenthood Affiliates v. Swoap* (1985) 173 Cal.App.3d 1187, 1196 [219 Cal.Rptr. 664].) However, in order to minimize judicial interference in the Legislature's activities, the single subject rule is to be construed liberally. A provision violates the rule only if it does not promote the main purpose of the act or does not have a necessary and natural connection with that purpose. (*Metropolitan Water Dist. v. Marquardt* (1963) 59 Cal.2d 159, 172-173 [28 Cal.Rptr. 724, 379 P.2d 28].)

([14b])The stated purpose of chapter 1090 is to increase funds available for reimbursing certain claims. It describes itself as an "act making an appropriation to pay claims

of local agencies and school districts for additional reimbursement for specified state-mandated local costs, awarded by the State Board of Control, and declaring the urgency thereof, to take effect immediately." (Stats. 1981, ch. 1090, p. 4191.) There is nothing in this introduction ***545** alerting the reader to the fact that the bill prohibits the Board from entertaining claims pursuant to the Cal/OSHA executive orders. The control language does not modify or repeal these orders, nor does it abrogate the necessity for County's continuing compliance therewith. It simply places County's claims reimbursement process in limbo.

This special appropriations bill is similar in kind to appropriations in an annual budget act. Observations that have been made in connection with the enactment of a budget bill are appropriate here. "[T]he annual budget bill is particularly susceptible to abuse of [the single subject] rule. 'History tells us that the general appropriation bill presents a special temptation for the attachment of riders. It is a necessary and often popular bill which is certain of passage. If a rider can be attached to it, the rider can be adopted on the merits of the general appropriation bill without having to depend on its own merits for adoption.' [Citation.]" (*Planned Parenthood Affiliates v. Swoap*, *supra.*, 173 Cal.App.3d at p. 1198.) Therefore, the annual budget bill must only concern the subject of appropriations to support the annual budget and may not constitutionally be used to substantively amend or change existing statutory law. (*Association for Retarded Citizens v. Department of Developmental Services* (1985) 38 Cal.3d 384, 394 [211 Cal.Rptr. 758, 696 P.2d 150].) We see no reason to apply a less stringent standard to a special appropriations bill. Because the language in chapter 1090 prohibiting the Board from processing claims does not reasonably relate to the bill's stated purpose, it is invalid.

([16])The budget control language in chapter 1090 is also invalid as a retroactive disclaimer of County's right to reimbursement for debts incurred in prior years. This legislative technique was condemned in *County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at p. 446. There, the Legislature had enacted a Government Code section which prohibited using appropriations for any purpose which had been denied by any formal action of the Legislature. The State attempted to use this code section to uphold a special appropriations bill which had deleted County's Board-approved claims for costs which were incurred prior to the enactment of the code section. The court held that the code section did not apply retroactively to defeat County's claims: "A retroactive statute is one which relates back to a previous transaction and gives that transaction a legal effect different from that which it had under the law when it occurred ... 'Absent some clear policy requiring the contrary, statutes modifying liability in civil cases are not to be construed retroactively.'" (*Id.* at p. 459, quoting *Robinson v. Pediatric Affiliates Medical Group, Inc.* (1979) 98 Cal.App.3d 907, 912 [159 Cal.Rptr. 791].) Similarly, the control language in chapter 1090 does not apply retroactively to County's prior, Board-approved claims. ***546**

([17])Finally, the control language in section 28.40 of the 1981 Budget Act and section 26.00[16] of the 1983 and 1984 Budget Acts does not work to defeat County's claims. (Stats. 1981, ch. 99, § 28.40, p. 606; Stats. 1983, ch. 324, § 26.00, p. 1504; Stats. 1984, ch. 258, § 26.00.) This section is comprised of both substantive and procedural provisions. We are concerned primarily with those portions that purport to exonerate State from its constitutionally and statutorily imposed obligation to reimburse County's state-mandated costs.

The writ of mandate directed compliance with the procedural provisions of these sections and is not a point of dispute on appeal. Subsection (a) affords the Legislature one last opportunity to appropriate funds which are to be encumbered for the purpose of paying state-mandated costs, an invitation repeatedly rejected. Subsection (b) directs that the Department of Finance notify the chairpersons of the appropriate committees in each house and chairperson of the Joint Legislative Budget Committee of the need to encumber funds. Presumably, the objective of this procedure is to give the Legislature another opportunity to amend or repeal substantive legislation requiring local agencies to incur state-mandated costs. Again, the Legislature declined to act. Legislative action pursuant to subsection (b) could arguably ameliorate the plight of local agencies prospectively, but would be of no practical assistance to a local agency creditor seeking reimbursement for costs already incurred.

The first portion of each section, however, imposes a budgetary restriction on encumbering appropriated funds to reimburse for state-mandated costs arising out of compliance with the executive orders, absent a specific

appropriation pursuant to subparagraph (b). For the reasons stated above, this substantive language is invalid under the single subject rule. It attempts to amend existing statutory law and is unrelated to the Budget Acts' main purpose of appropriating funds to support the annual budget. (*Association for Retarded Citizens v. Department of Developmental Services*, *supra.*, 38 Cal.3d at p. 394.) Now unfettered by invalid restrictions, the appropriations involved in this case are reasonably available for reimbursement. ***547**

C. *The Legislature's Plenary Power to Regulate Worker Safety Does Not Affect the Right to Reimbursement*

([18])State contends that article XIV, section 4 of the California Constitution vests the Legislature with unlimited plenary power to create and enforce a complete workers' compensation system. It postulates that the Legislature may determine that the interest in worker safety and health is furthered by requiring local agencies to bear the costs of safety devices. This non sequitur is advanced without citation of authority.

Article XIV, section 4 concerns the power to enact workers' compensation statutes and regulations. It does not focus on the issue of reimbursement for state-mandated costs, which is covered by Revenue and Taxation Code section 2207 and former section 2231, and article XIII B, section 6. Since these latter provisions do not effect a pro tanto repeal of the Legislature's plenary power over workers' compensation law (see *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d 46), they do not conflict with article XIV, section 4.

Moreover, even though the reimbursement issue has come before the Legislature repeatedly since 1972, no law has been enacted to exempt compliance with workers' compensation executive orders from the mandatory reimbursement provisions of Revenue and Taxation Code section 2207 and former section 2231. Likewise, article XIII B, section 6 does not provide an exception to the obligation to reimburse local agencies for compliance with these safety orders.

D. *Pre-1980 Claims Are Reimbursable Under Article XIII B, Section 6, Effective July 1, 1980*

([19])State further argues that to the extent County's claims for fiscal years 1978-1979 and 1979-1980 are predicated on the subvention provisions of article XIII B, section 6, they fall within a "window period" of nonreimbursement. This assertion emanates from section 6, subdivision (c), which states that the Legislature "[m]ay, but need not," provide reimbursement for mandates enacted before January 1, 1975. State reasons that because the constitutional amendment did not become effective until July 1, 1980, claims for costs incurred between January 1, 1975 and June 30, 1980, need not be reimbursed.

This notion was rejected in *City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at p. 182 on behalf of local agencies seeking reimbursement of unemployment insurance costs mandated by a 1978 statute. Basing its decision on well-settled principles of constitutional interpretation ***548** and upon a prior published opinion of the Attorney General, the court interpreted section 6, subdivision (c) as follows: "[T]he Legislature *may* reimburse mandates enacted prior to January 1, 1975, and *must* reimburse mandates passed after that date, but does not have to begin such reimbursement until the effective date of article XIII B (July 1, 1980)." (*Id.* at p. 191, italics in original.) In other words, the amendment operates on "window period" mandates even though the reimbursement process may not actually commence until later.

We agree with this reasoning and find costs incurred by County under the 1978 executive orders subject to reimbursement under the Constitution.

E. *Claims Under Revenue and Taxation Code Section 2207 and Former Section 2231 Are Not Time-barred*

([20])State collaterally asserts that to the extent County bases its claims on Revenue and Taxation Code section 2207 and former section 2231, they are barred by Code of Civil Procedure sections 335 and 338, subdivision 1. This omnibus challenge to the order directing payment has no merit.

Code of Civil Procedure section 335 is a general introductory section to the statute of limitations for all matters except recovery of real property. Code of Civil Procedure section 338, subdivision 1 requires "[a]n action upon a liability created by statute" to be commenced within three years.

A claimant does not exhaust its administrative remedies and cannot come under the court's jurisdiction until

the legislative process is complete. (*County of Contra Costa v. State of California* (1986) 177 Cal.App.3d 62, 77 [222 Cal.Rptr. 750].) Here, County pursued its remedy before the Board and prevailed. Thereafter, as required by law, appropriate legislation was introduced. Both the Board hearings and the subsequent efforts to secure legislative appropriations were part of the legislative process. (Former Rev. & Tax. Code, § 2255, subd. (a).) It was not until the legislation was enacted sans appropriations on September 30, 1981 (S.B. 1261) and February 12, 1982 (A.B. 171) that it became unmistakably clear that this process had ended and State had breached its duty to reimburse. At these respective moments of breach, County's right of action in traditional mandamus accrued. County's petition was filed on September 21, 1984, within the three-year statutory period. [17] (*Lerner v. Los Angeles City Board of Education*, *supra.*, 59 Cal.2d at p. 398.) ***549**

F. *Government Code Section 17612*'s Remedy for Unfunded Mandates Does Not Supplant the Court's Order

State continues its general attack on the order directing payment by arguing that the Legislature has "defined" the remedy available to a local agency if a mandate is unfunded. That remedy is found in Government Code section 17612, subdivision (b) and reads: "If the Legislature deletes from a local government claims bill funding for a mandate, the local agency ... *may* file in the Superior Court of the County of Sacramento an action in declaratory relief to declare the mandate unenforceable and enjoin its enforcement." (Italics added.) (See also former Rev. & Tax. Code, § 2255, subd. (c), eff. Oct. 1, 1982.)

State hints that this procedure is the only remedy available to a local agency if funding is not provided. At oral argument, State admitted that this declaration of enforceability and injunction against enforcement would be prospective only. This remedy would provide no relief to local agencies which have complied with the executive orders.

We conclude that Government Code section 17612, subdivision (b) is inapplicable here because it did not become operative until January 1, 1985. It was not in place when the Board rendered its decision on November 20, 1979; when funding was deleted from S.B. 1261 (Sept. 30, 1981) and A.B. 171 (Feb. 12, 1982); or when this litigation commenced on September 21, 1984. ([21])A party is not required to exhaust a remedy that was not in existence at the time the action was filed. (*Ross v. Superior Court* (1977) 19 Cal.3d 899, 912, fn. 9 [141 Cal.Rptr. 133, 569 P.2d 727].) To abide by this post facto legislation now would condone legislative interference in a specific controversy already assigned to the judicial branch for resolution. (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at p. 201.)

Also, this remedy is purely a discretionary course of action. By using the permissive word "may," the Legislature did not intend to override article XIII B, section 6 and Revenue and Taxation Code section 2207 and former section 2231. These constitutional and statutory imprimaturs each impose upon the State an obligation to reimburse for state-mandated costs. Once that determination is finally made, the State is under a clear and present ministerial duty to reimburse. In the absence of compliance, traditional mandamus lies. (Code Civ. Proc., § 1085.) [18] ***550**

G. *The Court's Order Properly Allows County the Right of Offset*

([22a])As the first in a series of objections to portions of the judgment which assist in the reimbursement process, State argues that the court has improperly authorized County to satisfy its claims by offsetting fines and forfeitures due to State. (Fn. 7, ¶ 5, *ante*.) The fines and forfeitures are those found in Penal Code sections 1463.02, 1463.03, 1463.5a and 1464; Government Code sections 13967, 26822.3 and 72056; Fish and Game Code section 13100; Health and Safety Code section 11502; and Vehicle Code sections 1660.7, 42004 and 41103.5. [19]

Broadly speaking, these statutes require County to periodically transfer all or part of the fines and forfeitures collected by it for specified law violations to the State Treasury. They are to be held there "to the credit" of various state agencies, or for payment into specific funds. State contends that since these statutes require mandatory, regular transfers and do not expressly permit diversion for other purposes, the court had no power to allow County to offset. State cites no authority for this contention.

([23])The right to offset is a long-established principle of equity. Either party to a transaction involving mutual

debits and credits can strike a balance, holding himself owing or entitled only to the net difference. (*Kruger v. Wells Fargo Bank* (1974) 11 Cal.3d 352, 362 [113 Cal.Rptr. 449, 521 P.2d 441, 65 A.L.R.3d 1266].) Although this doctrine exists independent of statute, its governing principle has been partially codified (Code Civ. Proc., § 431.70) (limited to cross-demands for money).

The doctrine has been applied in favor of a local agency against the State. In *County of Sacramento v. Lackner* (1979) 97 Cal.App.3d 576[159 Cal.Rptr.1], for example, the court of appeal upheld a trial court's decision to grant a writ of mandate that ordered funds awarded the County under a favorable judgment to be offset against its current liabilities to the State under the Medi-Cal program. The court stated that such an order does not interfere with the "Legislature's control over the 'submission, approval and enforcement of budgets....'" (*Id.* at p. 592, quoting Cal. Const., art. IV, § 12, subd. (e).)

([22b])The order herein likewise does not impinge upon the Legislature's exclusive power to appropriate funds or control budget matters. The identified ***551** fines and forfeitures are collected by the County for statutory law violations. Some of these funds remain with the County, while others are transferred to the State. State's portions are uncertain as to amount and date of transfer. State does not come into actual possession of these funds until they are transferred. State's holding of these funds "to the credit" of a particular agency, or for payment to a specific fund, does not commence until their receipt. Until that time, they are unencumbered, unrestricted and subject to offset.

H. *State's Use of its Statutory Offset Authority Was Properly Enjoined*

([24])State further contends that the trial court exceeded its jurisdiction by enjoining the exercise of State's statutory offset authority until County is fully reimbursed. (Fn. 7, ¶ 11, *ante*.)[20] This order complemented that portion of the order discussed, *infra.*, which allowed County to temporarily offset fines and forfeitures as an aid in the reimbursement process.

State correctly observes that it has not unlawfully used its offset authority during the course of this dispute. However, State has not needed to do so because it has adopted other means of avoiding payment on County's claims. In view of State's manifest reluctance to reimburse, and its otherwise unencumbered statutory right of offset, the trial court was well within its authority to prevent this method of frustrating County's collection efforts from occurring. (See *County of Los Angeles v. State of California* (1984) 153 Cal.App.3d 568 [200 Cal.Rptr. 394].)

I. *The Injunction Against Reversion or Dissipation of Undisbursed Appropriations Is Proper*

([25])State continues that the order (fn. 7, ¶ 4, *ante*) enjoining it from directly or indirectly reverting the reimbursement award sum from the general fund line item accounts, and from otherwise dissipating that sum in a manner that would make it unavailable to satisfy this court's judgment, violates Government Code section 16304.1.[21] This section reverts undisbursed ***552** balances in any appropriation to the fund from which the appropriation was made. No authority is cited for State's proposition. To the contrary, *County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at pp. 456-457 expressly confirms this type of ancillary remedy as a legitimate exercise of the court's authority to assist in collecting on an adjudicated debt, the payment of which has been delayed all too long.

That portion of the order restraining reversion is particularly innocuous because it only affects undisbursed balances in an appropriation. At the time of reversion, it is crystal clear that these remaining funds are unneeded for the primary purpose for which appropriated; otherwise, they would not exist. Moreover, that portion of the order restraining dissipation of the reimbursement award sum in a manner that would make it unavailable to satisfy a court's judgment is similarly a proper exercise of the court's authority. By not reimbursing County for the state-mandated costs, State would be contravening its constitutional and statutory obligations to subvent. To the extent it is not reimbursed, County would be compelled, contrary to law, to bear the cost of complying with a state-imposed obligation.

J. *The Auditor Controller and the Specified Funds Are Not Indispensable Parties*

([26], [27])State next contends that the Auditor Controller of Los Angeles County and the "specified" fines and forfeitures County was allowed to offset are indispensable parties. Failure to join them in the action or to serve them

with process purportedly renders the trial court's order void as in excess of its jurisdiction.[22] State cites only the general statutory definition of an indispensable party (Code Civ. Proc., § 389) to support this assertion.

The Auditor Controller is an officer of the County and is subject to the ***553** direction and control of the County board of supervisors. (Gov. Code, § 24000, subds. (d), (e), 26880; L.A. County Code, § 2.10.010.) He is indirectly represented in these proceedings because his principal, the County, is the party litigant. Additionally, he claims no personal interest in the fines and forfeitures and his pro forma absence in no way impedes complete relief.

The funds created by the collected fines and forfeitures also are not indispensable parties. This is not an in rem proceeding, and the ownership of a particular stake is not in dispute. Rather, this is an action to compel a ministerial obligation imposed by law. Complete relief may be afforded without including the specified funds as a party.

K. *County is Entitled to Interest*

([28])State insists that an award of interest to County unfairly penalizes State for not paying claims which it was prohibited by law from paying under Statutes 1981, chapter 1090, section 3. This argument is unavailing.

Civil Code section 3287, subdivision (a) allows interest to any person "entitled to recover damages certain, or capable of being made certain by calculation...." Interest begins on the day that the right to recover vests in the claimant. By its own terms, this section applies to any judgment debtor, "including the state...or any political subdivision of the state."

The judgment orders interest at the legal rate from September 30, 1981, for reimbursement funds originally contained in S.B. 1261, and from February 12, 1982, for the funds originally contained in A.B. 171. These are the respective dates that the bills were enacted without appropriations. As we concluded earlier, County's cause of action did not arise and its right to recover did not vest until this legislative process was complete. County offers no authority to suggest that any other vesting date is appropriate.

Furthermore, State cannot avoid its obligation to pay interest by relying on the invalid budget control language in Statutes 1981, chapter 1090, section 3. "An invalid statute voluntarily enacted and promulgated by the state is not a defense to its obligation to pay interest under Civil Code section 3287, subdivision (a)." (*Olson v. Cory* (1983) 35 Cal.3d 390, 404 [197 Cal.Rptr. 843, 673 P.2d 720].)

Appeal in Case No. 2 Civil B011941

(Rincon et al. Case)

The procedural history and legal issues raised in the *Rincon et al.* appeal are essentially similar to those discussed in the County of Los Angeles matter. ***554**

County, although not a party to this underlying trial court proceeding, filed a test claim with the Board. All parties agree that County represented the interests of the named respondents here.

The Board action resulted in a finding of state-mandated costs. It further found that Rincon et al. were entitled to reimbursement in the amount of $39,432. After the Legislature and the Governor, respectively, deleted the funding from the two appropriations bills, S.B. 1261 and A.B. 171, Rincon et al. filed a petition for writ of mandate and declaratory relief. This action was consolidated for hearing in the trial court with the action in B011942 (County of Los Angeles matter). The within judgment was also signed, filed and entered on February 6, 1985. The reimbursement order was directed against the 1984-1985 budget appropriations. State appeals from that judgment.

The court here included a judicial determination that the Board, or its successors, hear and approve the claims of certain other respondents for costs incurred in connection with the state-mandated program. (Fn. 7, ¶ 9, *ante*.) This special directive was necessary because the claims of these respondents (petitioners below) have not yet been determined.[23] Since we have ruled that State is barred by the doctrines of waiver and administrative collateral estoppel from raising the state mandate issue, the validity of these claims becomes a question of law susceptible to but one conclusion, and mandamus properly lies. (*County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at p. 453.) This portion of the order also underscores, for the Board's edification, the determination that the statutory restriction on the Board authority to proceed is invalid.[24]

Once again, our determinations and conclusions in the County of Los Angeles matter are equally applicable here.

Appeal in Case No. 2 Civil B006078

(Carmel Valley et al.)

Again, the procedural history and legal issues raised in this appeal are essentially similar to those discussed in the County of Los Angeles matter.

County filed a test claim with the Board. All parties agree that the County represented the interests of the named respondents here. ***555**

On December 17, 1980, the Board found that a state mandate existed and that specific amounts of reimbursement were due several respondents totalling $159,663.80. Following the refusal of the Legislature to appropriate funds for reimbursement, Carmel Valley et al. filed a petition for writ of mandate and declaratory relief on January 3, 1983. Judgment was entered on May 23, 1984. The reimbursement order was directed against 1983-1984 budget appropriations.

The judgment differs from the other two because it does not decree a specific reimbursement amount. The trial court determined that even though the Board had approved the claims, the State was not precluded from contesting that determination. The court's reasons were that the State, in its answer, had denied that the money claimed was actually spent, and that Board approval had not been implemented by subsequent legislation. The court concluded that the reimbursement process, of which the Board action was an intrinsic part, was "aborted."

We disagree with this portion of the court's analysis. The moment S.B. 1261 and A.B. 171 were enacted into law without appropriations, Carmel Valley et al. had exhausted their administrative remedies and were entitled to seek a writ of mandate. At the time of trial, State was barred by the doctrines of waiver and administrative collateral estoppel from contesting the state mandate issue or the amount of reimbursement. The trial court therefore should have rendered a judgment for the amount of reimbursement. Having failed to do so, this fact-finding responsibility falls upon this court. Although we ordinarily are not equipped to handle this function, the writ of mandate in this case identifies the amount of the approved claims as $159,663.80. We accordingly will amend the judgment to reflect that amount.

The trial court also predicated its judgment for Carmel Valley et al. solely on the basis of Revenue and Taxation Code section 2207 and former section 2231. In doing so, the court did not have the benefit of the decision in *City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at p. 182.[25] That case held that mandates passed after January 1, 1975, must be reimbursed pursuant to article XIII B, section 6 of the California Constitution, but that reimbursement need not commence until July 1, 1980. In light of this rule, we conclude that the trial court's decision ordering reimbursement is also supported by article XIII B, section 6. ***556**

State raises another point specific to this particular appeal. In its answer to the writ petition, State admitted that the local agency expenditures were state mandated. Consequently, the issue was not contested at the trial court level. However, State vigorously contends here that it is not bound by its trial court admissions because the state mandate issue is purely a question of law.

([29])State is correct in contending that an appellate court is not limited by the interpretation of statutes given by the trial court. (*City of Merced v. State of California*, *supra.*, 153 Cal.App.3d at p. 781.) However, State's victory on this point is Pyrrhic. Regardless of how the issue is characterized, State is precluded from contesting the Board findings on appeal because of the independent application of the doctrines of waiver and administrative collateral estoppel. These doctrines would also have applied at the trial court level if State's answer had raised the issue of state mandate in the first instance.

We also reject State's argument, advanced for the first time on appeal, that the executive orders of 1978 initially implement legislation enacted prior to January 1, 1975, and that state reimbursement is therefore discretionary. (Cal. Const., art. XIII B, § 6, subd. (c).) Again, State is barred by the doctrines of waiver and administrative collateral estoppel from arguing that costs incurred under the executive orders are not subject to reimbursement.

State continues that the *Carmel Valley* judgment against the Department of Industrial Relations is erroneous. Since the department was never made a party in the suit, nor served with process, the resulting judgment reflects

a denial of due process and is in excess of the court's jurisdiction. (See Code Civ. Proc., § 389; fn. 22, *ante*.)

This assertion is but a variant of the same argument advanced in the County of Los Angeles case, *supra.*, which we rejected as meritless. The department is part of the State of California. (Lab. Code, § 50.) State extensively argued the department's position and even offered into evidence a declaration from the chief of fiscal accounting of the department. As stated earlier, agents of the same government are in privity with each other. (*People v. Sims*, *supra.*, 32 Cal.3d at p. 487.)

Ross v. Superior Court, *supra.*, 19 Cal.3d at p. 899 demonstrates how, through the notion of privity, a government agent can be held in contempt for knowingly violating a court order issued against another agent of the same government. There, a court in an earlier proceeding had decided that defendant Department of Health and Welfare must pay unlawfully withheld welfare benefits to qualified recipients. The County Board of Supervisors, ***557** who were not parties to this action, knew about the court's order but refused to comply. The Supreme Court affirmed a trial court decision holding the Board in contempt for violating the order directing payment. The court reasoned that, as an agent of the Department of Health and Welfare, the Board did not collectively or individually need to be named as a party in order to be bound by a court order of which they had actual knowledge.

The determinations and conclusions in the County of Los Angeles case are likewise applicable here.

([30])An appellate court is empowered to add a directive that the trial court order be modified to include charging orders against funds appropriated by subsequent budget acts. (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at pp. 198, 201.) We do so here with respect to all three judgments. ***558**

Modification of Judgments in All Three Appeals

The trial court judgments ordering reimbursement from specific account appropriations were entered many months ago. We will affirm these judgments and thereby validate the trial courts' determination that funds already appropriated for the State Department of Industrial Relations were reasonably available for payment at the time of the courts' orders.

Due to the passage of time, we requested State at oral argument to confirm whether the appropriations designated in the respective judgments are still available for encumbrance. State's counsel responded by rearguing that the weight of the evidence did not support the trial courts' findings that specific funds were reasonably available for reimbursement. Counsel further hinted that the funds may not actually be available.

We hope that counsel for the State is mistaken. But in order to emphasize our strong and unequivocal determination that the local agency petitioners be promptly reimbursed, we will take judicial notice of the enactment of the 1985-1986 Budget Act (Stats. 1985, ch. 111) and the 1986-1987 Budget Act (Stats. 1986, ch. 186). (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at p. 197.) Both acts appropriate money for the State Department of Industrial Relations and fund the identical account numbers referred to in the trial courts' judgments. They are:

Account Numbers	1985-1986 Budget Act	1986-1987 Budget Act
8350-001-001	$94,673,000	$106,153,000
8350-001-452	2,295,000	2,514,000
8350-001-453	2,859,000	2,935,000
8350-001-890	16,753,000	17,864,000

Disposition

2d Civ. B011942 (*County of Los Angeles Case*)

The judgment is modified as follows:

(1) The following sentence is added to paragraph 2: "If the hereinabove described funds are not available for

reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The words "Fish and Game Code Section 13100" are deleted from paragraph 5.

(3) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

***2d Civ. B011941* (*Rincon et al. Case*)**

The judgment is modified as follows:

(1) The following sentence is added to paragraph 2: "If the hereinabove described funds are not available for reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

***2d Civ. B006078* (*Carmel Valley et al. Case*)**

The judgment is modified as follows: ***559**

(1) The following sentences are added to paragraph 2: "The reimbursement amounts total $159,663.80. If the hereinabove described funds are not available for reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

Ashby, Acting P. J., and Hastings, J., concurred.

A petition for a rehearing was denied March 17, 1987, and appellant's petition for review by the Supreme Court was denied May 14, 1987. Eagleson, J., did not participate therein. ***560**

Footnotes

1 *2d Civ. B006078*: The petitioners below and respondents on appeal are Carmel Valley Fire Protection District, City of Anaheim, Aptos Fire Protection District, Citrus Heights Fire Protection District, Fair Haven Fire Protection District, City of Glendale, City of San Luis Obispo, County of Santa Barbara and Ventura County Fire Protection District.
The respondents below and appellants here are State of California, Kenneth Cory and Jesse Marvin Unruh.
2d Civ. B011941: The petitioners below and respondents on appeal are Rincon Del Diablo Municipal Water District, Twenty-Nine Palms Water District, Alpine Fire Protection District, Bonita-Sunnyside Fire Protection District, Encinitas Fire Protection District, Fallbrook Fire Protection District, City of San Luis Obispo, Montgomery Fire Protection District, San Marcos Fire Protection District, Spring Valley Fire Protection District, Vista Fire Protection District and City of Coronado.
Respondents below and appellants here are State of California, State Department of Finance, State Department of Industrial Relations, State Board of Control, Kenneth Cory, State Controller, Jesse Marvin Unruh, State Treasurer, and Mark H. Bloodgood, Auditor-Controller, County of Los Angeles.
2d Civ. B011942: The County of Los Angeles is the petitioner below and respondent on appeal. Respondents below and appellants here are State of California, State Department of Finance, State Department of Industrial Relations, Kenneth Cory, and Jesse Marvin Unruh.
All respondents on appeal are conceded to be "local agencies," as defined in Revenue and Taxation Code section 2211.

2 The pertinent parts of Revenue and Taxation Code section 2207 provide: " 'Costs mandated by the state' means any incureased costs which a local agency is required to incur as a result of the following" [¶] (a) Any law enacted after

January 1, 1973, which mandates a new program or a n incureased level of service of an existing program: [¶] (b) Any executive order issued after January 1, 1973, which mandates a new program; [¶] (c) Any executive order isued after January 1, 1973, which (i) implements or interprets a state statute and (ii), by such implementation or interpretation, increases program levels above the levels required prior to January 1, 1973 ..."

3 The pertinent parts of former Revenue and Taxation Code section 2231, subdivision (a) provide: "The state shall reimburse each local agency for all 'costs mandated by the state', as defined in Section 2207." This section was repealed (Stats. 1986, ch. 879, § 23), and replaced by Government Code section 17561. We will refer to the earlier code section.

4 The pertinent parts of section 6, article XIII B of the California Constitution, enacted by initiative measure, provide: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] ... [¶¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." This constitutional amendment became effective July 1, 1980.

5 County filed its test claim pursuant to former Revenue and Taxation Code section 2218, which was repealed by Statutes 1986, chapter 879, section 19.

Additionally, the Board is no longer in existence. The Commission on State Mandates has succeeded to these functions. (Gov. Code, §§ 17525, 17630.)

6 The final legislation did include appropriations for other local agencies on other types of approved claims.

7 "1. The Court adjudges and declares that funds appropriated by the Legislature for the State Department of Industrial Relations for the Prevention of Industrial Injuries and Deaths of California Workers within the Department's General Fund may properly be and should be spent for the reimbursement of state-mandated costs incurred by Petitioner as established in this action.

"2. A peremptory writ of mandamus shall issue under the seal of this Court, commanding Respondent State of California, through its Department of Finance, to give notification in writing as specified in Section 26.00 of the Budget Act of 1984 (Chapter 258, Statutes of 1984) of the necessity to encumber funds in conformity [with]this order and, unless the Legislature approves a bill that would enact a general law, within 30 days of said notification that would obviate the necessity of such payment, Respondent Kenn[e]th Cory, the State Controller of the State of California, or his successors in office, if any, shall draw warrants on funds appropriated for the State Department of Industrial Relations for the 1984-85 Budget Year in account numbers 8350-001-001, 8350-001-452, 8350-001-453, and 8350-001-890 as implemented in Chapter 258 Statutes of 1984, sufficient to satisfy the claims of Petitioner, plus interest, as set forth in the motion and accompanying writ of mandamus. Said writ shall also issue against Jessie [*sic*] Marvin Unruh, the State Treasurer of the State of California, and his successors in office, if any, commanding him to make payment on the warrants drawn by Respondent Kenneth Cory.

"3. Pending the final disposition of this proceeding, or the payment of the applicable reimbursement claims and interest as set forth herein, Respondents, and each of of [*sic*] them, their successors in office, agents, servants and employees and all persons acting in concert [or] participation with them, are hereby enjoined and restrained from directly or indirectly expending from the 1984-85 General Fund Budget of the State Department of Industrial Relations as is more particularly described in paragraph number 2 hereinabove, any sums greater than that which would leave in said budget at the conclusion of the 1984-85 fiscal year an amount less than the reimbursement amounts on the aggregate amount of $307,685 in this case, together with interest at the legal rate through payment of said reimbursement amounts. Said amounts are hereinafter referred to collectively as the 'reimbursement award sum'.

"4. Pending the final disposition of this proceeding or the payment of the reimbursement award sum at issue herein, Respondents, and each of them, their successors in office, agents, servants and employees, and all persons acting in concert or participation with them, are hereby enjoined and restrained from directly or indirectly reverting the reimbursement award sum from the General Fund line-item accounts of the Department of Industrial Relations to the General Funds of the State of California and from otherwise dissipating the reimbursement award sum in a manner that would make it unavailable to satisfy this Court's judgment.

"5. In addition to the foregoing relief, Petitioner is entitled to offset amounts sufficient to satisfy the claims of Petitioner, plus interest, against funds held by Petitioner as fines and forfeitures which are collected by the local Courts, transferred to the Petitioner and remitted to Respondents on a monthly basis. Those fines and forfeitures are levied, and their distribution provided, as set forth in Penal Code Sections 1463.02, 1463.03, 14[6] 3.5[a], and 1464; Government Code Sections

13967, 26822.3 and 72056, Fish and Game Code Section 13100; Health and Safety Code Section 11502 and Vehicle Code Sections 1660.7, 42004, and 41103.5.

"6. The Court adjudges and declares that the State has a continuing obligation to reimburse Petitioner for costs incurred in fiscal years subsequent to its claim for expenditures in the 1978-79 and 1979-80 fiscal years as set forth in the petition and the accompanying motion for the issuance of a writ of mandate.

"7. The Court adjudges and declares that deletion of funding and prohibition against accepting claims for expenditures incurred as a result of the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 as contained in Section 3 of Chapter 109[0], Statutes of 1981 were invalid and unconstitutional.

"8. The Court adjudges and declares that the expenditures incurred by Petitioner as a result of the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 were not the result of any federally mandated program.

"9. A peremptory writ of mandamus shall issue under the seal of this Court commanding Respondent State Board of Control, or its successor-in-interest, to hear and approve the claims of Petitioner for costs incurred in complying with the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 subsequent to fiscal year 1979-80.

. . . . ."

"11. The Court adju[d]ges and declares that the State Respondents are prohibited from offsetting, or attempting to implement an offset against moneys due and owing Petitioner until Petitioner is completely reimbursed for all of its costs in complying with the state mandate of Title 8, California Administrative Code Sections 3401 through 3409."

8 This language is taken from Revenue and Taxation Code section 2207 and former section 2231. Article XIII B, section 6 refers to "higher" level of service rather than "increased" level of service. We perceive the intent of the two provisions to be identical. The parties also use these words interchangeably.

9 As it happened, the entire Board determination involved a question of law since the dollar amount of the claimed reimbursement was not disputed.

10 State is not precluded from raising this new issue on appeal. Questions of law decided by an administrative agency invoke the collateral estoppel doctrine only when a determination of conclusiveness will not work an injustice. Likewise, the doctrine of waiver is inapplicable if a litigant has no actual or constructive knowledge of his rights. Since the *State of California* rule had not been announced at the time of the Board or trial court proceedings herein, the doctrines of waiver and collateral estoppel are inapplicable to State on this particular issue. Both parties have been afforded additional time to brief the matter.

11 County suggests that to the extent private fire brigades exist, they are customarily part-time individuals who perform the function on a part-time basis. As such, they are excluded by the balance of the definitional term in title 8, California Administrative Code section 3402, which provides, in pertinent part: "... The term [fire fighter] does not apply to emergency pick-up labor or other persons who may perform first-aid fire extinguishment as collateral to their regular duties."

12 Article III, section 3 of the California Constitution provides: "The powers of state government are legislative, executive, and judicial. Persons charged with the exercise of one power may not exercise either of the others except as permitted by this Constitution."

Article XVI, section 7 of the California Constitution provides: "Money may be drawn from the Treasury only through an appropriation made by law and upon a Controller's duly drawn warrant."

13 When Governor Brown deleted the appropriations from A.B. 171, he stated that he was relying on the pronouncements in Statutes 1974, chapter 1284 and Statutes 1981, chapter 1090.

14 We address this subject only because the trial court found that the costs were not federally mandated. Actually, State cannot raise this issue on appeal because of the waiver and administrative collateral estoppel doctrines. We note, however, where there is a quasi-judicial finding that a cost is state mandated, there is an implied finding that the cost is not federally mandated; the two concepts are mutually exclusive.

Moreover, our task is aided by the fact that interpretation of statutory language is purely a judicial function. Legislative declarations are not binding on the courts and are particularly suspect when they are the product of an attempt to avoid financial responsibility. (*City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at pp. 196-197.)

15 Article IV, section 9 of the California Constitution reads: "A statute shall embrace but one subject, which shall be expressed in its title. If a statute embraces a subject not expressed in its title, only the part not expressed is void. A statute may not be amended by reference to its title. A section of a statute may not be amended unless the section is re-enacted as amended."

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16 Each of these sections contains the following language: "No funds appropriated by this act shall be encumbered for the purpose of funding any increased state costs or local governmental costs, or both such costs, arising from the issuance of an executive order as defined in section 2209 of the Revenue and Taxation Code or subject to the provisions of section 2231 of the Revenue and Taxation Code, unless (a) such funds to be encumbered are appropriated for such purpose, or (b) notification in writing of the necessity of the encumbrance of funds available to the state agency, department, board, bureau, office, or commission is given by the Department of Finance, at least 30 days before such encumbrance is made, to the chairperson of the committee in each house which considers appropriations and the Chairperson of the Joint Legislative Budget Committee, or such lesser time as the chairperson of the committee, or his or her designee, determines."

17 Technically, Statute has waived the statute of limitations defense because it was not raised in its answer. (*Ventura County Employees' Retirement Association v. Pope* (1978) 87 Cal.App.3d 938, 956 [151 Cal.Rptr. 695].)

18 We leave undecided the question of whether this type of legislation could ever be held to override California Constitution, article XIII B, section 6. The Constitution of the State is supreme. Any statute in conflict therewith is invalid. (*County of Los Angeles v. Payne*, *supra.*, 8 Cal.2d at p. 574.)

Similarly, former Revenue and Taxation Code section 2255, subdivision (c) cannot abrogate the constitutional directive to reimburse.

19 At oral argument, County conceded that the order authorizing offset of Fish and Game Code section 13100 fines and forfeitures is inappropriate. These collected funds must be spent exclusively for protection, conservation, propagation or preservation of fish, game, mollusks, or crustaceans, and for administration and enforcement of laws relating thereto, or for any such purpose. (Cal. Const., art. XVI, § 9; 20 Ops. Cal. Atty. Gen. 110 (1952).)

20 Government Code section 12419.5 provides: "The Controller may, in his discretion, offset any amount due a state agency from a person or entity, against any amount owing such person or entity by any state agency. The Controller may deduct from the claim, and draw his warrants for the amounts offset in favor of the respective state agencies to which due, and, for any balance, in favor of the claimant.... The amount due any person or entity from the state or any agency thereof is the net amount otherwise owing such person or entity after any offset as in this section provided." (See also *Tyler v. State of California* (1982) 134 Cal.App.3d 973, 975-976 [185 Cal.Rptr. 49].)

21 Government Code section 16304.1 provides: "Disbursements in liquidation of encumbrances may be made before or during the two years following the last day an appropriation is available for encumbrance.... Whenever, during [such two-year period], the Director of Finance determines that the project for which the appropriation was made is completed and that a portion of the appropriation is not necessary for disbursements, such portion shall, upon order of the Director of Finance, revert to and become a part of the fund from which the appropriation was made. Upon the expiration of two years...following the last day of the period of its availability, the undisbursed balance in any appropriation shall revert to and become a part of the fund from which the appropriation was made...."

22 Code of Civil Procedure section 389, subdivision (a) provides: "A person who is subject to service of process and whose joinder will not deprive the court of jurisdiction over the subject matter of the action shall be joined as a party in the action if (1) in his absence complete relief cannot be accorded among those already parties or (2) he claims an interest relating to the subject of the action and is so situated that the disposition of the action in his absence may (i) as a practical matter impair or impede his ability to protect that interest or (ii) leave any of the persons already parties subject to a substantial risk of incurring double, multiple, or otherwise inconsistent obligations by reason of his claimed interest. If he has not been so joined, the court shall order that he be made a party."

23 Responding to the budget control language directing it to refuse to process these claims, the Board declined to hear these matters.

24 Because certain claims have not yet been processed, we assume that the issue of the amount of reimbursement may still be at large. Our record is not clear on this point.

25 The decision in *City of Sacramento*, *supra.*, was filed just one day before the trial court signed the written order in this case. The Revenue and Taxation Code sections on which the court relied were operational before the costs claimed in this case were incurred.

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KeyCite Yellow Flag - Negative Treatment
Called into Doubt by Smith v. City of San Jose, Cal.App. 1 Dist., December 7, 1965

L.R.A. 1917E,685, 174 Cal. 478, 163 P. 670

GEORGE CHAFOR et al., Respondents,
v.
CITY OF LONG BEACH (a Municipal Corporation), Appellant.

Supreme Court of California.
L. A. No. 4100.
March 2, 1917.

MUNICIPAL CORPORATIONS—MAINTENANCE OF AUDITORIUM—PROPRIETARY CAPACITY—LIABILITY FOR NEGLIGENCE.
A municipal corporation acts in its private and proprietary, as distinguished from its governmental, capacity, in constructing and maintaining an auditorium in pursuance of the permissive authorization given by the act of 1903 (Stats. 1903, p. 412), and is liable to one lawfully on such premises for personal injuries resulting from its negligence in maintaining the structure, notwithstanding it derived no pecuniary benefit from the use being made of the building at the time of the injury.

ID.—ABSENCE OF PECUNIARY GAIN FROM USE OF BUILDING—GOVERNMENTAL FUNCTION.
The fact that the municipality reaps no direct pecuniary return from the use of the building for a particular purpose, ages not make its act in so using it the performance of a governmental function.

ID.—BUILDING ERECTED ON TIDE-LAND.
It is immaterial to the liability of the city that the building was constructed in part upon tide-lands belonging to the state, and that its construction and maintenance of the building under such circumstances was *ultra vires.*

APPEAL from a judgment of the Superior Court of Los Angeles County, and from an order refusing a new trial. Paul J. McCormick, Judge.

The facts are stated in the opinion of the court.

***479** Haas & Dunnigan, Byron C. Hanna, Stephen G. Long, George F. Kapp, Wilbur F. Downs, and George L. Hoodenpyl, for Appellant.
William A. Alderson, for Respondents.
Harry M. Irwin, Waldo M. York, T. E. Gibbon, Valentine & Newby, Kemp, Mitchell & Silberberg, Leo V. Youngworth, Harry A. Hollzer, T. A. Williams, Steely & Jeffers, *Amici Curiae,* on behalf of Respondents on a prior petition for rehearing.

HENSHAW, J.

This action was brought by the husband by the minor son of Edith Chafor to recover damages for the death of Edith, occasioned by the negligence of the defendant city. Trial was had before a jury, resulting in a verdict for the plaintiffs. Judgment followed the verdict, and from that judgment and from the order of the court denying defendant's motion for a new trial it prosecutes this appeal.

Long Beach is a maritime city. Prior to the accident it had constructed and was maintaining a wharf or pier extending into the ocean. The superstructure of this pier was supported by piles driven into the beach and ocean-bed. Near the outer end of this pier, and a little distance from it, the city had built and was also maintaining a structure known as an auditorium. The approach to the auditorium from the pier, a distance of about forty feet, was by means of a platform. From this platform doors gave entrance on to the main floor of the auditorium. The 24th of May, 1914, was ***480** the birthday of Queen Victoria. Certain of the inhabitants of Long Beach and of adjacent territory proposed to assemble in the auditorium for the purpose of celebrating this "Empire Day." A set program for the ceremonies and entertainment had been announced. In effect such part of the public as was interested in the event was invited to attend. Edith Chafor was a resident of the city of Los Angeles, and went to Long Beach for these ceremonies. They were inaugurated by a street parade headed by the municipal band. This parade was to end at the auditorium. While it was on the march people assembled on the platform, seeking admission to the auditorium. The doors were closed, so that a crowd collected on this platform. It gave way under the weight of this crowd, and carrying with it a part of the underpinning and superstructure of the auditorium building proper, precipitated some two hundred of the assemblage on to the beach sands twenty or more feet below. Edith Chafor

was one of these, and her dead body was removed from the wreckage.

As the question whether or not the city of Long Beach, which admittedly had built and was maintaining this auditorium and its approach, was doing so in a governmental capacity is the principal question presented on this appeal, it becomes pertinent to point out that the construction and maintenance of this auditorium, which was essentially a hall for public assemblages and gatherings, were not enjoined upon the municipality by positive law. Therefore the duty of maintenance was not a duty imposed by law. The auditorium was constructed under the permission of a statute of 1903. (Stats. 1903, p. 412.) This statute authorized and permitted a municipality to issue bonds and incur indebtedness for the purpose of constructing and maintaining such "public assembly or convention hall." It provided that the legislative body of the city "shall have power to appoint such officers or agents and to make and enforce such rules and regulations as may be necessary for the management, control, letting, and use of such public assembly or convention halls." It further provided that "all moneys derived from the use or hire of such assembly or convention hall shall be deposited in the treasury of the municipality to the credit of said public hall fund." After specifying the first applications to be made of the moneys thus received, it further declares that ***481** "any surplus remaining … may be appropriated and used for general municipal purposes." It is not in controversy but that this particular assembly hall was maintained under the provisions of this act, and that its management and control, also under the provisions of the act, were in the hands of defendant's board of public works. Control of the actual letting or permission to use the hall was retained by the city council.

The evidence discloses that upon the day in question the right to the use and occupancy of the hall had been given to an organization known as the Sons of St. George, and that the auditorium would be open to the general public after the Sons of St. George, with the paraders and their friends, had been admitted. The parade was led by a lieutenant of the city's police, with a number of the police force. These were followed by the municipal band. The mayor of the city and his wife were in the first automobile. The destination of all was the auditorium, which, under these circumstances, the mayor himself had entered just prior to the disaster. It cannot be said then that Edith Chafor was a trespasser at the time and place of her death. She was at least a licensee by permission or invitation, and if the city is responsible at all it is responsible for the exercise of ordinary care to see that such a licensee is not injured. (*Schmidt v. Bauer*, 80 Cal. 565, [5 L. R. A. 580, 22 Pac. 256]; *Means v. Southern California Ry.*, 144 Cal. 473, [1 Ann. Cas. 206, 77 Pac. 1001]; *Hontz v. San Pedro etc. R. R. Co.*, 173 Cal. 750, [161 Pac. 971].) With the ground thus cleared of these minor obstructions we can approach unhampered the consideration of the principal proposition: Was the city of Long Beach, at the time and on the occasion of this accident, managing this assembly hall in its governmental capacity or in a private and proprietary capacity?

To the resolution of this question we now come, prefacing the consideration by the statement, which will hereinafter be abundantly established, that there is no substantial controversy over the governing law. With the decision of the case of *Russell v. The Men of Devon,* 2 Term. Rep. 667, and the cases which followed it, it became an established principle of the English common law that an individual could not sustain an action against a political subdivision for negligence in its performance of any governmental function, nor of any ***482** public function expressly ordained and commanded by law. The reasonings supporting this were various. At times it was declared that it was better for the individual to suffer than for the public to be inconvenienced, and that this principle was stronger than that other and conflicting one which declared that for every injury the law gives a remedy. The city was but a hand of the sovereign and it was the "right divine of kings to govern wrong." Later it was argued that the moneys of a municipal corporation were designed to be devoted to public ends, and that it would be a misapplication of them to permit any part of them to be used in the liquidation of private damages. But this principle of decision, while firmly established where not abrogated by statute, failed to commend itself alike to jurists and to legislators, and it was argued that as neither a political subdivision nor yet the state itself could injure a man's property without compensation, it seemed somewhat fallacious and absurd to say that it could negligently injure him or destroy his life without liability to compensation for its wrongdoing. It was a clear instance, so it was argued, of making the rights of property higher and more sacred than the rights of man. Thus it came about that courts soon made a discrimination in these cases between the purely governmental or ordained functions of the

municipality, for remissness in the performance of which it was not liable, and those which, though undertaken and performed for the general benefit of the inhabitants of the municipality, were neither ordained nor in their nature essentially governmental. And recognizing, as has been said, the inherent injustice of the established rule, the disposition of the courts on the one hand was to uphold such actions under a very rigid construction of the phrase "governmental functions," while upon the other hand the legislatures in many states by positive enactment did away entirely with the distinction and made municipal corporations liable to precisely the same extent for the same acts as were private corporations. And indeed it may be added that, even without legislative sanction, in at least one instance the highest court of a state has repudiated as unsound the distinction between the governmental and private functions of a municipal corporation, and has declared that in every case the mode and measure of the liability of a public corporation should be that prescribed as to an individual or a private corporation. ***483** (*Bowden v. Kansas City,* 69 Kan. 587, [105 Am. St. Rep. 187, 1 Ann. Cas. 955, 66 L. R. A. 181, 77 Pac. 573].) And in this state it is not without interest to point out that the legislature has in terms imposed this liability upon all counties, cities, and cities and counties by a statute enacted in 1911 (Stats. 1911, p. 1115), though by reason of the fact that the substance of this enactment was neither declared nor hinted at in its title it is undoubted that for this reason the act is void. (*Brunson v. City of Santa Monica,* 27 Cal. App. 89, [148 Pac. 950].)

Again it is important to note that the true test does not rest upon the determination as to whether or not the municipality is reaping a monetary gain. A very large class of cases arises where this fact is established, as where parts of public buildings, such as a city hall, are leased or rented to private individuals, when it is uniformly held that the city in doing this thing is acting in a private capacity. But while it is true that the exaction of a rent or the making of a private profit is a very potent factor in determining the character of the act, the converse is not true. In other words, the act does not become governmental merely by virtue of the fact that the city from the performance of it reaps no direct pecuniary return. It may be and is equally a private, proprietary act if no financial return at all be exacted, or if the financial return which is exacted does not amount to a profit on the enterprise. The true principle has too often been confounded with the mere question of pecuniary gain. We may be excused, therefore, in elucidating this fact for quoting at some length. Thus in Dillon on Municipal Corporations, fifth edition, section 109, the principle is thus aptly and admirably stated:

The powers of a municipal corporation are … denominated "governmental, legislative or public; the other, proprietary or private. … On distinction of these powers rests the doctrine of the common-law liability of municipal corporations. In its governmental or public character the corporation is made, by the state, one of its instruments, or the local depository of certain limited and prescribed political powers, to be exercised for the public good on behalf of the state rather than for itself. … But in its proprietary or private character, the theory is that the powers are supposed not to be conferred, primarily or chiefly from considerations connected ***484** with the government of the state at large, but for private advantage of the compact community, which is incorporated as a distinct legal personality, or corporate individual; and as to such powers and to property acquired thereunder, and contract made with reference thereto, the corporation is to be regarded *quoad hoc* as a private corporation, or at least not public in the sense that the power of the legislature over it or the rights represented by it, is omnipotent."

The text of the learned author will be found supported by every well-considered adjudication. Noteworthy amongst these is the case of *City of Galveston v. Posnainsky,* 62 Tex. 118, [50 Am. Rep. 517], where the distinction between governmental and proprietary functions is elaborately considered and it is said:

The tendency of the decisions is evidently to recognize the liability of even quasi-corporations to suit not expressly given by statute, when injury results from the negligence of officials or agents exercising powers purely ministerial in reference to matters which cannot be said to pertain to duties purely public; to matters which, though in a restricted sense are public, yet more directly affect the welfare and pecuniary interest of the inhabitants of the *quasi*-corporation, upon whose will rests the determination whether the given act shall be performed and how it shall be performed, and upon whom rests solely the expense of the work put in operation by themselves, through which, at least indirectly, they receive benefit in which the general public, if at all, but slightly participates. …

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It would seem that, in so far as municipal corporations of any class, and however incorporated, exercise powers conferred on them for purposes essentially public—purposes pertaining to the administration of general laws made to enforce the general policy of the state—they should be deemed agencies of the state, and not subject to be sued for any act or omission occurring while in the exercise of such power, unless, by statute, the action be given; that, in reference to such matters, they should stand as does sovereignty, whose agents they are, subject to be sued only when the state, by statute, declares they may be. …

"In so far, however, as they exercise powers not of this character, voluntarily assumed—powers intended for the private advantage and benefit of the locality and its inhabitants —there seems to be no sufficient reason why they should be ***485** relieved from that liability to suit and measure of actual damage to which an individual or private corporation exercising the same powers for a purpose essentially private would be liable."

We have thus been at pains to set forth the principle determinative of the question as to whether or not a particular act pertains to the governmental rather than to the proprietary activities of a city, because the discussions of some courts, notably those of Massachusetts, have been misconstrued upon the element of pecuniary gain. *Hill v. City of Boston,* 122 Moss. 344, [23 Am. Rep. 332], illustrates this. It is to be noted that the court is there dealing, and so expresses itself, with the "neglect of a public duty imposed upon it [the municipality] by law for the benefit of the public and from the performance of which the corporation receives no profit or advantage." The particular case was an action of tort against the city of Boston to recover damages for injuries received by a child while attending a public school, under the express duty imposed by general law to maintain such public schools, and it is held that the municipality is not liable. The supreme court of Massachusetts did not in any way broaden the definition of governmental functions as applied to municipal acts. It did not rest its decision, as well it might, upon the proposition that the maintenance of public schools, being a duty enjoined upon the municipality, partook of the nature of a governmental function. Nor yet, while recognizing and declaring that it was a duty, the performance of which was enjoined upon the city by general law, did it exonerate the city for liability on this account, but held and declared that in the performance of such *ordained* duties the city would not be liable when the performance of the duty was not connected with any pecuniary benefit to the municipality, thereby plainly implying that even though the duty were ordained by general law, if it contemplated any pecuniary benefit to the municipality, it would stand liable as would a private individual. To illustrate the unwillingness of the Massachusetts courts to extend the doctrine of municipal immunity, the case of *Dickinson v. City of Boston,* 188 Mass. 595, [1 L. R. A. (N. S.) 664, 75 N. E. 68], is instructive. The city of Boston was by law responsible for the negligent maintenance of its public streets. To prevent accidents on those streets it was not required by ***486** law to light them at night. However, by a permissive statute the city "was authorized but not required to maintain lamps to light its streets." It maintained such lights for the general benefit of the inhabitants, for their general safety, and specifically to lessen the danger of accidents upon the highways. One of its lamp-posts, negligently maintained, fell and injured the plaintiff. In his action brought to recover damages these matters are discussed, and it was urged, amongst many other reasons, that the city was not liable in that it was reaping no pecuniary benefit from the maintenance of the lights, but that the benefit was a general public benefit to the inhabitants. The supreme court of Massachusetts made answer: "It was unnecessary for the plaintiff to show that any direct commercial profit had been derived. The indirect benefit thus conferred supplied a sufficient motive for the defendant's action. Having voluntarily taken the enterprise for its private benefit, and not acting in the performance of any public duty, it is liable for negligence in the management of its corporate property when used for such purposes." (Citing numerous cases.) Still further, as showing the limits within which the courts circumscribe the meaning of the phrase "governmental function," may be cited *Ehrgott v. Mayor of New York,* 96 N. Y. 264, [48 Am. Rep. 622], where it is held that it is settled by a long line of decisions that municipal corporations proper, having the powers conferred upon them respecting streets within their limits, owe to the public the duty to keep them in a safe condition for use in the usual mode by travelers, and are liable in a civil action for special injury resulting from neglect to perform this duty; and the *City of Kokomo v. Loy* (Ind.), 112 N. E. 994, where the supreme court of Indiana applies the same doctrine to injuries resulting from the negligent upkeep of a public park as well as public streets.

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That the distinction between governmental and private functions has been adopted as the principle governing the adjudications in this state, our decisions leave no doubt. Thus in the early case of *Touchard v. Touchard,* 5 Cal. 306, 307, it is said: "A corporation, both by the civil and common law, is a person, an artificial person, and although a municipal corporation has delegated to it certain powers of government, it is only in reference to those delegated powers that it will be regarded as a government. In reference to all other of ***487** its transactions, such as affect its ownership of property in buying, selling, or granting, and in reference to all matters of contract, it must be looked upon and treated as a private person." In *Bloom v. San Francisco,* 64 Cal. 503, [3 Pac. 129], in the conduct of the municipal hospital the city and county maintained a nuisance. Action was brought to recover damages occasioned by this nuisance, and it was held that "the city and county of San Francisco had such proprietorship of the city and county hospital as rendered it liable for damages in the case presented." In *South Pasadena v. Pasadena Land etc. Co.*, 152 Cal. 579, [93 Pac. 490], it is declared that in the carrying on of a water service for the benefit of South Pasadena the city of Pasadena will not be acting in its political, public, or governmental capacity. And in *Davoust v. City of Alameda,* 149 Cal. 69, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], this court, reviewing our cases, and drawing the indicated distinction between governmental and proprietary functions, held that the negligent operation of an electric-light plant by the city, which light plant was operated for the twofold purpose of lighting the city and furnishing electric light and power to its inhabitants, made the city liable, upon the ground that it was not exercising any governmental power or function.

Nor is it difficult to set forth the definition of governmental functions as applied to a city. Under the theory of the common law, that the municipality is protected from liability only while exercising the delegated functions of sovereignty, the governmental powers of a city are those pertaining to the making and enforcing of police regulations, to prevent crime, to preserve the public health, to prevent fires, the caring for the poor, and the education of the young; and in the performance of these functions all buildings and instrumentalities connected therewith come under the application of the principle. (*City of Kokomo v. Loy* (Ind.), 112 N. E. 994.)

But it is of course true that modern cities and towns enter upon many forms of activity, operate utilities for the benefit of the inhabitants, and provide many means for the easing or improving of the condition of the people that were never dreamed of at common law. Nevertheless the uniform holding as to all such activities on principles manifestly just to the people themselves is that no matter how beneficial they may be in a general sense to the inhabitants of the municipality, ***488** unless they are governmental in their essence, the municipality's conduct in managing them is controlled by the same rules of liability that apply to an individual. Thus, while schoolhouses, city halls, jails, firehouses, are with much uniformity held to be instrumentalities for governmental purposes, no such rule applies to other buildings constructed by a municipality, though for the benefit, convenience, or advantage of its people. And even in the case of strictly governmental buildings, if the city shall let a portion of one of them to a private tenant, while retaining control of the rest, that tenant is entitled to his recovery for the city's negligent maintenance of his premises. (*Worden v. New Bedford,* 131 Mass. 23, [41 Am. Rep. 185].)

But when the building is one constructed and maintained not for governmental purposes, then are the authorities uniform that even though it be so maintained under permission of the statute, and though it be maintained for the benefit of the inhabitants, or for such of them as may desire to use it, the municipality acts in a private, proprietary capacity and is liable for its torts as would be a private individual. The cases so holding with reference to municipal water-plants and their structures, and gas-plants and their structures, are so numerous as not even to call for specific citation. The same rule is universally applied to market-houses built by the municipality and maintained for the convenience of the people. (*Barron v. Detroit,* 94 Mich. 601, [34 Am. St. Rep. 366, 19 L. R. A. 452, 54 N. W. 273]; *Town of Suffolk v. Parker,* 79 Va. 660, [52 Am. Rep. 640]; *Weymouth v. New Orleans,* 40 La. Ann. 344, [4 South. 218]; *Baltimore v. Brannon,* 14 Md. 227.) As instances of the application of the same rule to other buildings may be cited *Libby v. Portland,* 105 Me. 370, [18 Ann. Cas. 547, 26 L. R. A. (N. S.) 141, 74 Atl. 805], *Henderson v. Kansas City,* 177 Mo. 477, [76 S. W. 1045], and *Cowley v. Borough of Sunderland,* 6 Hurl. & N. 233. In this last case the borough of Sunderland, under the permission of a Victorian statute, maintained baths and washhouses for the use of the inhabitants. The

argument was there made that the woman, injured in a mangle, which it was charged was negligently constructed and maintained, was a mere volunteer and licensee, and electing to use the machine could not recover. But answer was made that the statute was passed for the benefit of the poor and more ignorant ***489** classes of the population. The corporation chose to avail itself of its powers to erect these washhouses, and in the discharge of the statutory duty thus undertaken it was bound to exercise ordinary care and diligence.

What, then, remains to be said concerning the building here under consideration? It was not a structure, the maintenance of which was enjoined by law. It was not a building used for any of the governmental functions of the municipality. True, it was maintained for the benefit of the municipality in the sense that it afforded the populace a meeting place for many forms of amusement and instruction. But in all these respects it differed no whit from any other auditorium or assembly hall built and maintained by private capital for the same purposes. The city had full charge of it, could let it out, or refuse to let it out at its pleasure. The act under which it was authorized, though not compelled to build it, contemplated that it should be let for profit, and that the proceeds of these lettings should go to defray the expense of maintenance and the cost of construction. That in any individual instance the city allowed it to be used without a rental charge, no more affected the governing principle than it would be affected if a private proprietor did the same thing. The payment of rent, much or little or none at all, did not transform the particular use of this assembly hall, which use was let or permitted for the celebration of the birthday of a foreign potentate, into a governmental function of the city of Long Beach. Appellant in its brief declares the proposition to be "whether the law authorizing the act was such as authorized a proprietary or governmental institution and in this respect the design of the act is the main thing to be held in mind and not the result." Considering that design, and therein noting that the act provides for a rental charge for the use of the assembly hall, and contemplates that that rental charge should or may be sufficient to pay for the operating expenses, to provide a sinking fund, and even to contribute to the general funds of the city, can it be doubted for one moment that in the view of the legislature the city was simply empowered to enter into a proprietary business for its personal advantage and financial gain? Upon the other hand, that the city of Long Beach maintained this assembly hall for the very purposes indicated by the legislative permission is made manifest by the ***490** offered official resolution of the city, "fixing the charges for the use of the public auditorium in the city of Long Beach." In this resolution we find that conventions or mass meetings not for the purpose of financial gain, whether the assemblage be of the residents or nonresidents of the city of Long Beach, may have the use of the auditorium free. If financial gain enter into the purpose of the convention or mass meeting, then the charge shall be from twenty-five to one hundred dollars per day. When used by nonresidents of the city of Long Beach for purposes of entertainment and amusement the charge is $35 a day. When used by residents of the city of Long Beach for like purposes of amusement the charge is $15 a day. When used by nonresidents of the city of Long Beach for purely charitable or philanthropic purposes, if "an admission is charged, the proceeds to be used outside of the city of Long Beach, the charge shall be $25 a day. If only a collection is taken, the charge shall be $15." Wherein is to be drawn the slightest distinction between the use and operation of the city of Long Beach of this hall and the same use and occupation if it were owned by an individual and let for identical purposes? Nor does the fact that in an individual instance no rental charge was made at all affect the proposition, nor work a modification of the governing principle. A private individual granting the use of his hall for this occasion without rental charge would not be exonerated. The city of Long Beach, doing precisely the same thing, stands in precisely the same legal position. Therefore we consider the conclusion absolutely unescapable, upon principle and under the authorities, that the city of Long Beach was acting in a private and proprietary capacity in the general maintenance of this assembly hall, and was likewise so acting upon the specific occasion here in question when it was there let or its use permitted for the celebration of "Empire Day."

Neither of the California cases relied upon by appellant is at all in point. In *Melvin v. State,* 121 Cal. 16, [53 Pac. 416], plaintiff sought to recover damages from the state for injuries received at the state fair at Sacramento, and received a verdict which was set aside on motion. This court held that the state was not liable for two reasons: First, that it had distinctly disclaimed liability for the acts of its agents —the state board of agriculture—in declaring that "in no event shall the state be liable for any premium, award or ***491** debt created by said board of agriculture," and it declared that such a liability for injury was within

the meaning of this language. Second, it held that the state board of agriculture was a mere corporate agency of the state for public and governmental functions, saying: "We find none of the elements of a private corporation in its creation, its powers, or the mode of their exercise. Its objects are public and educational. … It exists for the sole purpose of promoting the public interest in the business of agriculture and kindred objects. It is an agency of the government, and in no sense an organization for pecuniary profit to the state." *Denning v. State,* 123 Cal. 316, [55 Pac. 1000], was an action by an employee of the harbor commission to recover for injuries received while in the employ of the commission as a night deckhand on a tug belonging to the state. This case is distinguished in *Davoust v. City of Alameda,* 149 Cal. 69, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], and in the latter case it is pointed out "that the plaintiff when injured was employed in a distinct branch of the service, viz., the protection against or extinguishment of fires, which, even in the case of municipal corporations, is uniformly held to be the exercise of a purely governmental function."

The negligent maintenance of the structure was sufficiently established by the evidence to justify the implied finding of the jury.

The conclusion already expressed concerning the general purpose of the construction of this auditorium, and the specific purpose of its use upon the day in question, does not at all depend upon the evidence which was introduced to the effect that the city did not charge any rental upon the day in question, and that it did rent portions of the auditorium for purposes of private gain. The fact that no rental was charged upon this particular day is in no wise determinative of the question, and the evidence of the rental for gain of portions of the structure and of the pier, even if excluded, could not have changed the inevitable result.

The appellant sought to introduce evidence to prove that the building was constructed in part upon tide-lands belonging to the state, and that its construction and maintenance of the building under these circumstances was *ultra vires.* We can perceive no possible force to this contention, and ***492** state it only that it may appear that it has not been overlooked.

The judgment and order appealed from are therefore affirmed.

Melvin, J., Lorigan, J., Sloss, J., and Lawlor, J., concurred.

SHAW, J., Dissenting.
I dissent from the opinion of the majority of the court. On the main question of the liability of municipalities for the negligence of their officers whereby personal injuries are caused, I am satisfied with the views expressed by Victor E. Shaw, Justice *pro tem.*, upon the decision of the case at the former hearing. The following are the parts of that opinion wherein the question is discussed:

Conceding negligence on the part of the officers and employees of the city by reason of which Edith Chafor was killed, is defendant liable in damages to the plaintiffs for such loss as they may have sustained by reason of her death? Municipal corporations in the performance of their functions act in a double character. (Dillon on Municipal Corporations, 5th ed., secs. 38, 1303.) In the one they, as subordinate agencies of the state, are intrusted with the exercise of limited governmental powers for the benefit of the local public, in the performance of which, in this state there being no statutory provision, they are not liable for the negligence of their officers, agents, and servants through whom they act. (See concurring opinion of Justice Shaw in the case of *Davoust v. City of Alameda,* 149 Cal. 69, 75, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], and authorities there cited.) In the other, they may exercise powers conferred, not for the benefit of the public, but for their own private and pecuniary profit, in which case they are, in exercising such powers, liable for damages resulting from the negligence of their officers, agents and employees to the same extent and governed by the same rules as are applicable to corporations or individuals engaged in like business. (*Davoust v. City of Alameda, supra; Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 43 L. R. A. 435, 55 Pac. 961]; *Western Sav. Fund Society v. Philadelphia,* 31 Pa. St. 175, 183, [72 Am. Dec. 730].)

This distinction is recognized and conceded by counsel for respondents, who insists that the construction, maintenance, ***493** and use of this assembly hall was not a governmental function, but that it was maintained, used, and operated purely as a corporate enterprise from which the city in its private or proprietary character received revenue, emolument, and gain, just as a city

does in operating a lighting or water plant by means whereof the city distributes to its citizens, for hire and tolls, electric current or water. If respondents' position be sustained, it must follow that the city should be held liable to plaintiffs in damages. In support of their contention, respondents insist, first, that the statute heretofore referred to, pursuant to which bonds were issued for the construction of the hall, fixes the character thereof as private and proprietary; and, second, that the evidence shows that the assembly hall was erected and maintained by the city in its proprietary capacity, and from the letting of which and exacting rentals for the use thereof it derived revenue, gain, and profit.

Respondents' proposition that the character, use, and maintenance of the assembly hall or auditorium is conclusively fixed as proprietary, as distinguished from governmental, is based upon section 8 of the legislative act referred to (Stats. 1903, p. 412), pursuant to which, as stated, bonds were issued and from the proceeds of the sale of which the building was constructed. This section provides: "All moneys derived from the use or hire of such assembly or convention hall shall be deposited in the treasury of the municipality to the credit of said public hall fund, and shall be applied, exclusively, to the following purposes, to wit, First—For the necessary expenses of conducting, maintaining, and insuring such hall, and of making all improvements and repairs thereof. Second—For the payment of installments of interest or principal becoming due on said bonds until the whole of said bonded indebtedness shall have been paid. Third—Any surplus remaining after providing for the purposes, first and second above specified, may be appropriated and used for general municipal purposes." At the time in question the city of Long Beach, operating under a freeholder's charter, had a board of public works, which, not only as provided in section 9 of the act, but in the charter as well, committed to said board the control, management, letting, and use of such hall. Save as to these provisions, the act is silent as to the capacity, whether governmental or private, in which the city should ***494** construct and maintain the hall. That the city might let the hall for private use, exacting a rental therefor, admits of no question. The act itself, however, does not restrict nor purport to limit the power of the city to such use of the hall. On the contrary, as declared pursuant to section 2 thereof, the public interest and necessity demanded the construction of such hall, which, as we construe it, was intended for use by the city in a dual capacity; that is, both governmental and private. It might be and, as shown by the evidence, was used as a meeting place for its legislative body; for gatherings to discuss questions of public interest; for religious and political conventions; for recreation, amusement, or educational purposes, the function of providing a place for such meetings being purely governmental in character for the general benefit of the public. (*Clarke v. Inhabitants of Brookfield,* 81 Mo. 503, [51 Am. Rep. 243].) On the other hand, as determined by the city, it might, through its proper officers, let all or any part of the structure for private uses, exacting rentals therefor, in which case the revenue derived must be applied as provided by section 8 of the act. In the case of *Davis v. Rockport,* 213 Mass. 279, [43 L. R. A. (N. S.) 1139, 100 N. E. 612], it is said: "A municipality has the power to let for profit real estate held for public purposes and not needed for the present for such a purpose. It is not compelled to let the property lie idle. … It either could allow the property to remain unused or it could let the same or a part thereof for profit. If it took the former course, it was answerable only as a municipality in possession of property intended for public use. If it took the latter course then it became answerable as a private owner." Not infrequently cities, anticipating future needs, acquire property for a public use and until devoted to such purpose let the same for private use for hire. The city of Los Angeles furnishes an illustration of the principle here stated. It holds real estate purchased for public purposes which, not presently required therefor, it lets for private uses. In Dillon on Municipal Corporations, fifth edition, section 1657, it is said: "It has been held that the maintenance of a city hall for the use of the city officers and employees as well as for the transaction of the city's business, is the exercise of a governmental function, and that the city cannot impliedly be held liable for negligence on the part of its officers and agents in maintaining and repairing the city ***495** hall or in controlling and managing the same. But the liability of the city has been sustained where the city has rented out the city hall building or some considerable part thereof, and the person injured had come to the building to transact business with the city's tenants." (*Little v. City of Holyoke,* 177 Mass. 114, [52 L. R. A. 417, 58 N. E. 170].) The principle is further illustrated by city water systems which, like this hall, serve a dual purpose; one being governmental in supplying water through hydrants for fire protection, and the other private in supplying water for profit for the use of its inhabitants. If an individual sustains damage by reason of the negligence of the city in the operation of a plant for

supplying water to its inhabitants, it, like an individual, is liable therefor. (*Denning v. State,* 123 Cal. 316, [55 Pac. 1000]; *Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 43 L. R. A. 435, 55 Pac. 961].) On the other hand, if the damage results from the operation of the plant in the exercise of the power of the city in affording protection from fire, then the city is not accountable for such damages. (*Judson v. Borough of Winsted,* 80 Conn. 384, [15 L. R. A. (N. S.) 91, 68 Atl. 999].) Our conclusion is that the act was not designed as requiring the hall to be constructed and maintained by the city in its private corporate character for emolument and gain, but that it was intended for either private or governmental use, varying from time to time, as the city, through its proper officers, might determine.

Since there is nothing in the act of the legislature which fixed the capacity in which the city held and conducted the hall or restricted the purpose for which it should be used, the question becomes one of fact to be determined from the evidence.

This brings us to respondents' second proposition, namely: that defendant at all times conducted and operated the assembly hall, not in the exercise of a governmental function, but in the capacity of a private corporation and proprietor thereof, by letting the same for private uses and reserving rental for such use. It does not appear from the record that the board of public works which, under the charter and act of the legislature, had control of the letting and charge of the hall, ever at any time authorized the use of it for holding the exercises on what was termed "Empire Day" to commemorate the birthday of Queen Victoria. Indeed, so far as disclosed, ***496** the committee of persons in charge of the celebration assumed the right to hold the exercises there, without consulting with defendant or any of its officials. Waiving this informality, however, and conceding that such authority and right were implied, no pretense or claim is made that the hall *was let for hire, or that any rental or revenue was exacted for its use on said occasion.* Indeed, with the exception of one occasion in *March, 1910,* when the assembly hall was by the city council, for a consideration of $25 paid to the city clerk, let for the purposes of a lecture delivered therein, the record fails to disclose that the assembly hall proper, as disconnected from two booths or rooms, was ever at any time let for hire for any private purpose whatsoever. On the contrary, during the same period of time, it appears that the city, at large expense for services of janitors and other necessary charges of maintenance, has devoted it to the use of the public, wherein to hold political, religious, and other meetings, concerts by the municipal band, school commencements, and, indeed, all sorts of meetings of a public nature and for the public benefit, for which no rental or charge was exacted. Notwithstanding such fact, however, the trial court, upon the apparent theory that the structure wherein the hall was located, together with the pier and wharf, should be regarded as one unit and the whole thereof be deemed a "public assembly convention hall," permitted plaintiffs to introduce evidence showing that since 1908 defendant had received as hire for the two booths, one in the northwest corner and one in the northeast corner of the building, the combined area of which was 1,582 square feet as compared with an area of 17,446 square feet in the hall proper, the sum of $1,461; that for certain booths and rooms erected at the ocean-end of the pier extending more than one thousand feet beyond the assembly hall building, the city had received several thousand dollars revenue for rent thereof, and the sum of two thousand dollars for a franchise or permit issued to a bathhouse company to construct and maintain a pipe-line along the pier by means whereof to obtain water for its bathhouse, besides receipts of other revenues from the use of the pier and wharf. In admitting such evidence the trial court committed prejudicial error. In our opinion, the pier and wharf and booths at the end thereof were no part of the assembly hall building, but entirely distinct and separate therefrom, as much so, indeed, as though the approach or way ***497** covering the intervening space between the pier and entrance to the hall had never been constructed. Hence, the rental received from this pier and wharf could not be deemed revenue derived from the letting of the assembly hall for hire.

We perceive no reason why a municipality having a city hall building erected solely for public uses, may not let rooms therein which are not immediately required for such public use, as to which it would occupy the position of a corporate proprietor and as such, like a private owner, be liable for damages sustained by reason of its negligence in connection therewith. "When a city or town does not devote such building [public hall] exclusively to municipal uses, but lets it or a part of it for its own advantage and emolument by receiving rents or otherwise, it is liable while it is so let in the same manner as a private owner would be." (*Worden v. City of New Bedford,* 131 Mass. 23, [41 Am. Rep. 185]; *Little v. City of Holyoke,* 177 Mass.

114, [52 L. R. A. 417, 58 N. E. 170]; *Chicago v. Selz etc. Co.*, 202 Ill. 545, [67 N. E. 386]; *Davis v. Rockport,* 213 Mass. 279, [43 L. R. A. (N. S.) 1139, 100 N. E. 612].) This being true, the letting for hire of these two small booths, disconnected as they were from the assembly hall, as to which defendant's character was that of a private owner, did not fix or affect its character or function in the maintenance of the assembly hall. They were no part of the hall and, like the wharf, the rental received for the use thereof was not for the letting of the hall for hire. Hence, it follows that the ruling of the court in admitting evidence of the letting of these two booths was likewise erroneous.

Not only was there no evidence of the letting of the assembly hall by the city or its officers, but there was no evidence, nor is there any claim or pretense, that any rental was exacted or paid for such use upon the occasion of the accident wherein Edith Chafor lost her life.

The building or structure abutted a street on the easterly side thereof from which the hall could be reached by a stairway leading to the entrance of the building. The building was a two-story structure, the lower floor being uninclosed and at all times open to anyone desiring to go there. The second floor upon which the assembly hall was located was surrounded by an open and covered balcony eleven feet wide, furnished with seats, and open at all times to the general public, the use of which and the lower floor may be likened ***498** to the use of a public city park. It thus appears that the building was not only designed and constructed for a double use, but that in the conduct and maintenance thereof the city has in part used it in its private corporate capacity in letting for hire the two small booths referred to; that it has used a part thereof, to wit, the balconies and lower floor, at all times in its governmental capacity, like a public park, and that, with the exception of one occasion, in March, 1910, has used the assembly hall at all times without profit, gain, or emolument for the benefit of the general public.

"If correct in our conclusion that the maintenance and use of the hall was not impressed with an exclusive proprietary character, but that the character of the use on the occasion in question must be determined from evidence showing a letting of the hall for private use for hire, as to which the record is wholly silent, it necessarily follows that the court committed highly prejudicial error in, of its own motion, instructing the jury that 'the construction, erection, and maintenance of the auditorium building by the city of Long Beach was an act of said city in the exercise of its proprietary or private capacity, and the measure of its responsibility or liability in relation thereto is the same as that of any other individual or private corporation engaged in similar conduct, and no more or no less.' "

For the foregoing reasons I am of the opinion that the judgment should be reversed.

Angellotti, C. J., concurred.
Rehearing denied.

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144 Cal.App.2d 822, 301 P.2d 968

LEO CHAPPELLE, JR., a Minor, etc., Appellant,
v.
CITY OF CONCORD et al., Respondents.

Civ. No. 17000.
District Court of Appeal, First District, Division 2, California.
Oct. 4, 1956.

HEADNOTES

(1a, 1b, 1c)
Judgments § 352--Res Judicata--Judgment on Demurrer.
In an action against a city for false imprisonment, false arrest, assault and battery by a police officer and negligence in retaining him in the city's service, a judgment of dismissal was proper under the doctrine of res judicata where the issues had been adjudicated in a prior action in which general demurrers based, amongst other grounds, on the city's sovereign immunity were sustained without leave to amend, and where, for the same reason, no cause of action was stated by the complaint in the instant action.

(2)
Judgments § 352--Res Judicata--Judgment on Demurrer.
Whether and to what extent a judgment entered on sustaining a demurrer is res judicata depends on the character of the demurrer.

Conclusiveness of judgment on demurrer, notes, 13 **A.L.R.** 1104; 106 **A.L.R.** 437. See also **Cal.Jur.2d,** Judgments, § 234; **Am.Jur.,** Pleading, § 251 et seq.

(3)
Judgments § 352--Res Judicata--Judgment on Demurrer.
A judgment on a general demurrer will have the effect of a bar in a new action in which the complaint states the same facts as those held not to constitute a cause of action on the former demurrer or, notwithstanding differences in the facts alleged, when the ground on which the demurrer in the former action was sustained is equally applicable to the second one.

(4)
Municipal Corporations § 439--Torts--Liability.
The operation of a police department by a municipality is a governmental function, and in the absence of a special statute the municipality is not liable for the torts of its officers in performance of that function.

Municipal immunity from liability for torts, note, 120 **A.L.R.** 1376. See also **Cal.Jur.,** Municipal Corporations, § 343; **Am.Jur.,** Municipal Corporations, § 572.

(5)
Municipal Corporations § 439--Torts--Liability.
In the absence of a special statute, a municipality is not liable for damages caused by negligence in the exercise of a governmental function.

(6a, 6b)
False Imprisonment § 27--Judgment--Res Judicata.
An action against a police officer for false arrest, false imprisonment and assault and battery is barred under res judicata by a final judgment for defendant in a prior action based on a complaint identical to that filed in the instant action, notwithstanding the judgment in the prior action was in error in applying the claim presentation requirement of Gov. Code, § 1981, to intentional torts.

(7)
Public Officers § 66.1--Liability--Actions--Filing Claim as Condition Precedent.
Gov. Code, § 1981, making filing of a claim a prerequisite to recovery of damages for personal injuries resulting from negligence or carelessness of a public officer, does not apply to intentional torts such as false arrest, false imprisonment and assault and battery.

See **Cal.Jur.,** Public Officers, § 88 et seq.; **Am.Jur.,** Municipal Corporations, § 688.

(8)
Judgments § 347--Res Judicata--Judgment as Bar.
An erroneous judgment is as conclusive as a correct one.

(9)
Judgments § 347--Res Judicata--Judgment as Bar.
Res judicata may sometimes not be applied when rigid adherence to the doctrine would defeat the ends of justice,

but the mere fact that the prior judgment was erroneous is not, in itself, sufficient to prevent application of the doctrine.

SUMMARY

APPEAL from a judgment of the Superior Court of Contra Costa County. Hugh H. Donovan, Judge. Affirmed.

Action for damages for false arrest, false imprisonment, assault and battery, and negligence. Judgment for defendants affirmed.

COUNSEL
Benjamin F. Marlowe for Appellant.
Thomas F. McBride, City Attorney, and Thomas John Coll for Respondents.

THE COURT.

Plaintiff appeals from a judgment entered on the sustaining of demurrers to his complaint and dismissal ***824** of said complaint on the ground that the issues raised in it had been adjudicated in a prior judgment.

([1a]) Plaintiff, a minor, through his guardian *ad litem,* had brought an action against the city of Concord (hereinafter called the City) and Tony Freitas, a police officer of the City, for false arrest, false imprisonment, assault and battery allegedly occurred on June 10, 1954. The action against the City was also based on negligence in retaining defendant Freitas in its service as a police officer notwithstanding his reputation for violence. It was further alleged in the first amended complaint in said action that plaintiff served a claim on the city clerk of the City on February 24, 1955, at which time he had first heard of his legal rights against the City from his guardian *ad litem.* Demurrers of both the City and Freitas were sustained without leave to amend and judgment for defendants was entered accordingly on May 18, 1955. Plaintiff did not appeal from said judgment but on the same date filed a new complaint, which introduced the present action. Its allegations were literally the same as those of the first amended complaint in the prior action, except that an allegation was added to the effect that immediately after the assault plaintiff's guardian *ad litem* was informed by the City through its city manager that it was not necessary for her to file a claim on behalf of plaintiff and that the City would take care of everything, that in reliance on said representation, plaintiff failed timely to file a verified claim and that the City therefore is estopped to rely on said failure. The demurrers sustained to said complaint are mentioned in the judgment but their character does not appear from the transcript. However, the judgment for defendants must at any rate be upheld on the basis of res judicata.

([2]) Whether and in how far a judgment entered on the sustaining of a demurrer is res judicata depends on the character of the demurrer sustained. To plaintiff's first amended complaint, the defendants demurred both generally (no cause of action stated) and specially for ambiguity, uncertainty and unintelligibility, the special demurrers relating to different minor details. The fact that the demurrers to the first amended complaint were sustained without leave to amend shows that it was the general demurrers that were sustained. That such was also the understanding of plaintiff is shown by the fact that in his new complaint he did not try to cure the alleged defects against which the special demurrers were directed. ([3]) A judgment on a general demurrer will have the effect ***825** of a bar in a new action in which the complaint states the same facts which were held not to constitute a cause of action on the former demurrer or, notwithstanding differences in the facts alleged, when the ground on which the demurrer in the former action was sustained, is equally applicable to the second one. (*Goddard v. Security Title Ins. & Guar. Co.,* 14 Cal.2d 47, 52 [92 P.2d 804]; *Keidatz v. Albany,* 39 Cal.2d 826, 828 [249 P.2d 264].) Under this rule the former judgment is a bar to the present action.

([1b]) No cause of action against the City is stated in either complaint because in the governmental function here involved it is protected against tort liability by the sovereign immunity. ([4]) The operation of a police department by a municipality is a governmental function, and in the absence of a special statute rendering it liable, the municipality is not liable for the torts of its officers in the performance of said function. (*Henry v. City of Los Angeles,* 114 Cal.App.2d 603 [250 P.2d 643] and cases there cited.) ([5]) The same rule applies to damages caused by the negligence of the municipality itself in the exercise of a governmental function. (*Miller v. City of Palo Alto,* 208 Cal. 74, 75 [280 P. 108].) *Fernelius v. Pierce,* 22 Cal.2d 226 [138 P.2d 12], on which appellant relies, was an action against individual superior officers of the tort feasor, to which individuals the sovereign immunity does not extend. ([1c]) The governmental character of the function was

one of the grounds adduced by the City for its general demurrer and we must presume that the demurrer was sustained in whole or in part on that ground. The new allegation with respect to the estoppel of the City is wholly irrelevant to this point. The application of the doctrine of res judicata with respect to the action against the City was correct.

([6a], [7]) The general demurrer of defendant Freitas was based solely on the requirement of section 1981 of the Government Code that for certain personal injury and property damage actions against a public officer a verified claim must within 90 days be presented to the officer claimed to have caused the damage, which presentation was not alleged. The contention was unsound. Section 1981, *supra,* according to its language refers to *negligence or carelessness* of a public officer only. It does not apply to intentional torts like the ones here alleged. (*Sarafini v. City & County of San Francisco,* 143 Cal.App.2d 570, 574-575 [300 P.2d 44]; *Cf. Ward v. Jones,* 39 Cal.2d 756, 760 [249 P.2d 246].) No ***826** other ground why no action would lie against the tort feasor himself appears. However, the general demurrer was sustained and plaintiff did not appeal so that the judgment became final. ([8]) "An erroneous judgment is as conclusive as a correct one." (*Panos v. Great Western Packing Co.,* 21 Cal.2d 636, 640 [134 P.2d 242]; *Weil v. Barthel,* 45 Cal.2d 835, 839 [291 P.2d 30].) With respect to the action against defendant Freitas, the complaint in the action before us and the one in the prior action are identical. The only additional allegation, the one concerning the estoppel, relates to defendant City only. ([6b]) The adjudication in the prior action was then conclusive in this respect.

([9]) We are aware of the fact that in rare cases exceptions to the application of the res judicata doctrine have been made when rigid adherence would defeat the ends of justice, contrary to important considerations of policy. (See *Greenfield v. Mather,* 32 Cal.2d 23, 35 [194 P.2d 1]; 50 C.J.S. 13; 30 Am.Jur. 909.) However, such exception is not applied simply because the decision is erroneous. Even in *Greenfield v. Mather, supra,* which goes further in this direction than any other case known to us, many circumstances were stated showing the exceptional character of the case, in which many appeals to the Supreme Court had been taken and in which conflicting decisions had been given on points not clearly in issue, and even in that case three justices dissented. Here, both parties misapprehended the law and induced the court to do the same and plaintiff permitted the decision to become final although appeal was available. There is no reason to permit him to relitigate the point, contrary to the purpose of the res judicata doctrine that there be an end to litigation when once a final decision as to a point has been obtained by the parties.

Judgment affirmed. ***827**

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KeyCite Red Flag - Severe Negative Treatment
Overruled in Part by Los Angeles Met. Trans. Auth. v. Public Util. Com'n, Cal., June 20, 1963

183 Cal. 526, 192 P. 25, 10 A.L.R. 1425

CITY OF PASADENA, Petitioner,
v.
RAILROAD COMMISSION OF THE STATE OF CALIFORNIA, Respondent.

Supreme Court of California.
L. A. No. 6325.
August 12, 1920.

[1]
PUBLIC UTILITIES—MUNICIPAL CORPORATIONS—CONSTITUTIONAL LAW.
Section 23 of article XII of the constitution, which declares that every "private corporation" which owns and operates a plant "for the production, generation, transmission, delivery or furnishing of heat, light, water or power" is a public utility subject to such control and regulation by the Railroad Commission as may be provided by the legislature, does not include municipal corporations, and, therefore, the rates charged by a municipality in supplying its inhabitants with electricity from electric works constructed and operated by it are not under the control of the Railroad Commission.

[2]
MUNICIPAL CORPORATIONS — CONDUCT OF PUBLIC UTILITY — STATUS OF CORPORATION.
While a municipal corporation when carrying on a public service acts in a proprietary capacity, and for some purposes with respect to such business it is subject to the same rules as private persons, it does not change its character as a municipal corporation by engaging in such an enterprise.

[3]
STATUTORY CONSTRUCTION — WORDS OF CONSTITUTION.
The words of the constitution should be given their general meaning, unless they appear to be used in a legal or technical sense.

[4]
PUBLIC UTILITIES—POWERS OF RAILROAD COMMISSION—EXTENT OF AUTHORITY OF LEGISLATURE—CONSTITUTIONAL LAW.
Section 22 of article XII of the constitution, authorizing the legislature to confer upon the Railroad Commission additional powers of the same kind or different from those conferred by the section which are not inconsistent with the powers conferred upon the commission by the constitution, is limited to such powers as are cognate and germane to the purposes for which the Railroad Commission was created, and cannot be construed to give the legislature authority to confer upon the commission power to regulate the rates of service charged by municipal corporations operating municipally owned public utilities.

[5]
ID.—REGULATION OF RATES OF ELECTRICAL CORPORATIONS—CONSTRUCTION OF PUBLIC UTILITIES ACT—MUNICIPALLY OWNED PUBLIC UTILITIES NOT INCLUDED.
The provision of the Public Utilities Act conferring upon the Railroad Commission power to regulate the rates of every electrical corporation, a term which it defines as including every corporation or person owning, controlling, operating, or managing any electric plant for compensation within the state (Stats. 1915, p. 115, sec. 2, subd. r), does not empower the commission to regulate and control the rates and service of an electrical plant owned and operated by a municipality.

PROCEEDING on Certiorari to review an order of the Railroad Commission requiring a municipal corporation to file a schedule of rates for electric service. Order annulled.

The facts are stated in the opinion of the court.

***527** James H. Howard for Appellant.
Hugh Gordon, Douglas Brookman and Gibson, Dunn & Crutcher for Respondent.

***528** SHAW, J.

The charter of the city of Pasadena, adopted in 1901, gives it power to construct and operate electric works and supply electricity to its inhabitants for light and heat. The city constructed electric works, and prior to 1909 began to

supply its inhabitants with electricity. In 1909 it extended its wires into the adjoining city of South Pasadena, and ever since that time it has been supplying electricity to the inhabitants of the latter city for similar purposes. On August 30, 1919, on the complaint of the Pacific Light and Power Company, which was also engaged in supplying electricity to the inhabitants of South Pasadena, the Railroad Commission, in pursuance of section 14 and other provisions of the Public Utilities Act (Stats. 1915, p. 122), made an order requiring the city of Pasadena "to file with the railroad commission a complete schedule of all its rates, charges, rules and regulations for the service of electric energy to consumers within the limits of South Pasadena." The object of the present proceeding in this court is to review and annul said order on the ground that it is in excess of the jurisdiction of the commission.

The theory of the plaintiff is that the Public Utilities Act, under which the Railroad Commission made the order, has no application to any public service carried on by a municipal corporation under the authority of the constitution and laws of the state. We are of the opinion that this proposition must be sustained.

The authority of the legislature to make laws conferring powers upon the Railroad Commission is derived from sections 22 and 23 of article XII of the constitution. The defendant relies mainly on the two opening sentences of section 23, which are as follows:

"Every private corporation, and every individual or association of individuals, owning, operating, managing, or controlling any commercial railroad, interurban railroad, street railroad, canal, pipe-line, plant, or equipment, or any part of such railroad, canal, pipe-line, plant, or equipment, within this state, for the transportation or conveyance of passengers, or express matter, or freight of any kind, including crude oil, or for the transmission of telephone or telegraph messages, or for the production, generation, transmission, delivery or furnishing of heat, light, water or power or for the furnishing of storage or wharfage facilities, either directly or indirectly, ***529** to or for the public, and every common carrier, is hereby declared to be a public utility subject to such control and regulation by the Railroad Commission as may be provided by the legislature, and every class of private corporations, individuals, or associations of individuals hereafter declared by the legislature to be public utilities shall likewise be subject to such control and regulation. The Railroad Commission shall have and exercise such power and jurisdiction to supervise and regulate public utilities, in the state of California, and to fix the rates to be charged for commodities furnished, or services rendered by public utilities as shall be conferred upon it by the legislature, and the right of the legislature to confer powers upon the Railroad Commission respecting public utilities is hereby declared to be plenary and to be unlimited by any provision of this constitution."

(1) It will be observed that the first sentence of this clause declares that every "private corporation" which owns and operates a plant "for the production, generation, transmission, delivery or furnishing of heat, light, water or power" is a public utility. The subsequent sentence declaring the right of the legislature to confer powers upon the Railroad Commission to be plenary is limited to the conferring of powers "respecting public utilities." This, of course, means public utilities as defined in the first sentence. That sentence, by its terms, applies exclusively to private corporations and natural persons or associations of persons. It does not include a municipal corporation in the definition. The argument on behalf of the defendant is that a municipal corporation, when carrying on a public service, such as furnishing water, light, heat, or power to its inhabitants, is not acting in its governmental capacity as sovereign, but is acting in a proprietary capacity, and that for some purposes with respect to such action it is subject to the same rules as private persons. For example, it is liable in damages for injuries caused by negligence of its servants in the operation of such public service, whereas it is not so liable for negligence of its servants, such as policemen, who are carrying out its governmental powers. This proposition is well established. (*Davoust v. Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760]; *South Pasadena v. Pasadena L. & W. Co.,* 152 Cal. 595, [93 Pac. 490]; ***530** *Chafor v. Long Beach,* 174 Cal. 487, [Ann. Cas. 1918D, 106, L. R. A. 1917E, 685, 163 Pac. 670].) Upon these premises it is said that a city acts in a dual capacity—that it is a public corporation with respect to its strictly governmental powers, and a private corporation with respect to its public service functions; that for this reason the phrase "private corporation" in section 23 must be held to include municipalities whenever the so-called proprietary powers of the municipality are concerned, and that, therefore, the legislature may confer powers upon the Railroad Commission to regulate the rates of municipalities for carrying on such public service.

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(2) It is not true that a city is a private corporation when carrying on a municipally owned public utility. No decision so holds. All the decisions on the subject recognize the fact that a city does not change its character by engaging in such enterprises. The entire course of reasoning in the opinions is founded on the postulate that such city retains its character as a municipal corporation, and the burden of the arguments consists of efforts to find reasons for holding it liable to the same extent as a private corporation engaged in the same service, notwithstanding the fact that the city carries on the business as a municipal corporation. They all assume that such city is as much a municipal corporation with respect to such business functions as it is with regard to the exercise of its purely governmental powers. The distinction does not go to its character as a corporation, but to its liabilities in exercising one class of its powers, as compared to its liabilities in the exercise of its functions as a local governmental agency.

The phrase "private corporation" in section 23 should therefore be given its natural and ordinary meaning, and consequently this section does not include municipal corporations among the public utilities it deals with. That this must have been the intent of the framers of the section and of the voters who adopted it is shown by other provisions of the section and by the address in its favor sent to each voter with the sample ballot and copy of the proposed amendment just prior to the election. The section carefully provides that, notwithstanding the powers thereby given to the Railroad Commission "respecting public utilities," the powers of control over "any public utility" that were vested in any municipal corporation should not be affected by the section ***531** unless the voters of such municipality, at an election held for that purpose, should decide to relinquish such powers. This, of course, refers to "public utilities" as defined in the opening clause of the section. The proviso would not engender the suspicion that the municipal corporation itself was included in the "public utilities" to which it refers, nor lead anyone to suppose that the voters were to be invited to surrender to the commission the control and management of any municipally owned water systems, lighting plants or street-car lines. It does strongly imply that it refers solely to the powers of such cities to regulate the operations of privately owned systems of that kind. The address to the voters, after stating that the term "public utilities" was so defined by the section as to embrace every conceivable kind of public service, summarized its effect on that subject as follows: "Briefly, the amendment proposes to extend the jurisdiction of the Railroad Commission to every kind of public service excepting that furnished by municipally owned plants," and pointed out that the provision reserving to cities the powers over public utilities theretofore vested in them was inserted in the section because of the feeling that the voters of such cities might feel reluctant to submit to the revocation of such powers and the transfer thereof to the Railroad Commission without their consent. By this address the voters were clearly informed that municipal corporations were not included in the definition of public utilities in the opening clause of the section. To hold that under all these circumstances the voters nevertheless were aware of the refined distinction between the governmental powers and proprietary powers of cities and towns and understood that municipal corporations, so far as they exercise proprietary functions, were to be included in the definition of public utilities and in the term "private corporations," seems to be the height of absurdity. While many lawyers may understand the distinction, it is certainly true that the ordinary citizen has no conception thereof.

It is true that section 23 was amended in 1914 so as to provide that the rate regulating power of municipal corporations over "public utilities" should no longer be retained by them. But the definition of the term "public utilities" remained unchanged, and the amendment made rather emphasizes the proposition that municipal corporations performing ***532** such public service were not supposed to be embraced in the definition.

Furthermore, at the election of 1911 the people also adopted an amended section 19 of article XI, which provides that "any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat," and the like, and might also furnish such service to inhabitants outside its boundaries. They were empowered to do these things as municipal corporations, not as private corporations, thus showing that they were not, while so doing, to be classed as private corporations.

The conclusion we have reached is in accordance with the well-established rules for the construction of the language of a constitution.

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(3) The constitution, "unlike the acts of our legislature, owes its whole force and authority to its ratification by the people; and they judged of it by the meaning apparent on its face according to the general use of the words employed, where they do not appear to have been used in a legal or technical sense." (*Miller v. Dunn*, 72 Cal. 465, [1 Am. St. Rep. 67, 14 Pac. 27].) Where a word has a popular and also a technical meaning, "the courts will accord to it its popular meaning, unless the very nature of the subject indicates or the context suggests that it is employed in its technical sense." (*Weill v. Kentfield*, 54 Cal. 113.)

The defendant also claims that the right of the legislature to confer such powers upon the Railroad Commission is given by a passage in the amended section 22 of article XII, an amendment also adopted in 1911. This section creates the Railroad Commission and contains provisions for the appointment of its members and for its organization, and confers upon it certain powers with regard to common carriers of freight and passengers, and thereupon it provides that "no provision of this constitution shall be construed as a limitation upon the authority of the legislature to confer upon the Railroad Commission additional powers of the same kind or different from those conferred herein which are not inconsistent with the powers conferred upon the Railroad Commission in this constitution, and the authority of the legislature to confer such additional powers is expressly declared to be plenary and unlimited by any provision of this constitution."

***533** If the provision of section 22 that "the authority of the legislature to confer upon the Railroad Commission *additional powers* of the same kind or *different from* those conferred herein which are not inconsistent with the powers conferred" upon the commission by the constitution, should be thenceforth "plenary and unlimited by any provision of this constitution," is to be taken literally, its possible results would be so startling that it cannot be conceived that any citizen could ever be induced knowingly to vote for such a measure. If so construed, the legislature would thereby be empowered to confer upon the Railroad Commission all the powers of government, executive, judicial, and even the legislative power itself. Of course, no such effect can be allowed to this broad declaration. It must be construed in connection with the general subject of the section, with the other sections which precede it relating to the same general subject, and with the place in which it occurs in the constitution. It is a part of article XII, the whole of which is devoted to the subject of private corporations, as distinguished from public corporations, the latter being the particular subject of article XI. The powers referred to are, therefore, to be understood to mean powers relating to private corporations, except where the words indicate a different intent. Section 22 was in article XII as originally adopted. It was the concluding section of a series beginning with section 17, all of which related to common carriers and the public control and regulation thereof. While amendments of sections 20 and 21 were also adopted in 1911, they were not changed so as to relate to any other subject. Section 22, before the amendment of 1911, also created a Railroad Commission and granted to it certain powers over common carriers in language in many respects similar to the amendment.

(4) Considering all these circumstances, the only reasonable conclusion is that the authority intended to be given to the legislature by this section to confer powers upon the Railroad Commission must be limited to the subject of powers over common carriers and transportation and the control and regulation thereof by the commission, and such other things as may be necessary or convenient for the proper and effectual exercise of such powers of regulation and control. The subject of similar powers over all other classes of public utilities carried on by private corporations or persons is covered by ***534** the provisions of section 23, as we have seen. The provisions of section 22 should not be extended beyond the matters included in the context and the subject matter of the article in which it occurs, and hence it cannot be construed to give the legislature authority to confer upon the commission power to regulate the rates of service charged by municipal corporations operating municipally owned public utilities.

This is in harmony with the interpretation heretofore given to this provision of the section. In *Pacific etc. Co. v. Eshleman*, 166 Cal., at page 691, [Ann. Cas. 1915C, 822, 50 L. R. A. (N. S.) 652, 137 Pac. 1119], the court, speaking through Justice Sloss, said concerning these clauses of sections 22 and 23: "To the extent, then, that the legislature has acted in conferring powers (*germane to the subject of the regulation and control of public utilities*) upon the Railroad Commission, it necessarily follows that the validity of such grant of powers is not to be questioned by reason of any other provision of the state constitution." (Italics ours.) And again on page 702, on the same subject, the learned justice, by way of conclusion, said: "This statement is, however, to be taken subject

to the qualification that the powers conferred by the legislature upon the Railroad Commission must be such as are cognate and germane to the purposes for which the Railroad Commission was created, i.e., the regulation and control of public utilities." And in the same case Justice Henshaw said in summing up: "The legality of such powers as the legislature has or may thus confer upon the commission, if cognate and germane to the subject of public utilities, may not be questioned under the state constitution" (page 689). The court here, as the context of the opinions plainly shows, uses the phrase "public utilities" with the meaning given to it by the definition thereof in section 23, and as referring solely to public service carried on by private corporations or natural persons.

The defendant contends that the decision in *South Pasadena v. Pasadena L. & W. Co.*, 152 Cal. 579, [93 Pac. 490], is contrary to these conclusions. In that case the defendant, a private corporation, owned a water system supplying water to a defined territory situated partly in Pasadena and partly in South Pasadena, they being adjoining cities. Pasadena was about to acquire the system from the company as a part of its municipal water system. The suit was brought to ***535** enjoin the company from making the transfer. In the course of the opinion it is declared that after Pasadena acquired the water system it would be obliged to continue the public service in South Pasadena, as before, and that South Pasadena, under section 19, article XI, and section 1, article XIV, of the constitution, as it then stood, would thereafter, as before, have the right to fix the rates to be charged for the water served within that city. The main reason given was that since the constitution then gave to each city power to fix rates for water supplied within its limits for public use, the power of South Pasadena was paramount with respect to the rates for water supplied therein. The case was decided in 1908, prior to the adoption of the constitutional amendments we are now considering. Section 19, article XI, then gave powers to cities to regulate the rates for public service of water or light within its limits by "any individual or any company duly incorporated for that purpose." Section 1, article XIV, provided that rates for the use of water supplied in any city by "any person, company, or corporation in this state" should be fixed annually by such city. The word "private" was not appended as a limitation of the meaning of the words "company" and "corporation" in these sections, as it is now in section 23 of article XII, and as there was no other body then authorized to fix such rates, the words "company" and "corporation" were obviously as applicable to rates for water supplied by a municipal corporation to the inhabitants of an adjoining city as to rates for water so supplied by any other corporation, and this the court there assumed without stating it. The decision can have no bearing upon the meaning of the words "private corporation" in the part of section 23 of article XII defining "public utility," adopted in 1911.

It may be that, by reason of the recent amendment of section 19, article XI, in the few cases where one city operates a municipal plant for a public service which extends into another city, there may be some doubt which one of the two cities shall have the right to fix the rates for such outside service. The terms of the amendment are not clear on the question. With that subject we are not here concerned. It is clear, as we have shown, that the city furnishing the outside public service is not a "public utility" within the meaning of that term, as defined in section 23, article XII, and ***536** hence that the Railroad Commission has no power to fix its rates for such service.

(5) It is also suggested that the Public Utilities Act confers upon the commission power to regulate the rates of every "electrical corporation," a term which it defines as including "every corporation or person … owning, controlling, operating or managing any electric plant for compensation within the state" (Stats. 1915, p. 115, sec. 2, subd. r), and that this definition is broad enough to include municipal corporations. The language of the subdivision and also that of the other subdivisions of the section indicate that the legislative purpose extended to the regulation of commercial corporations only, and that municipal corporations were not within its purview. If municipal corporations are to be included, the result would be that the Railroad Commission would have power to regulate and control the rates and the service of every water plant, gas plant, electrical plant, and street-car system owned or operated by any municipality in the state. We cannot believe that the very general language used should be so broadly interpreted, in the absence of any specific mention of municipal corporations, even if it were conceded that the legislature under the general grant of legislative power (art. IV, sec. 1), might transfer such powers from the municipalities to the commission.

We find no tenable ground upon which to base the conclusion that the rates charged by a municipality for its

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service in carrying on any public utility, either within its own limits or in outside territory, are under the control of the Railroad Commission.

The order is annulled.

Angellotti, C. J., Olney, J., Wilbur, J., Lennon, J., and Lawlor, J., concurred.
Rehearing denied.

All the Justices concurred.

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64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754,
63 Cal. Comp. Cases 733, 98 Cal. Daily Op.
Serv. 4644, 98 Daily Journal D.A.R. 6559

CITY OF RICHMOND, Plaintiff and Appellant,
v.
COMMISSION ON STATE MANDATES,
Defendant and Respondent; DEPARTMENT OF FINANCE, Real Party in Interest and Respondent.

No. C026835.
Court of Appeal, Third District, California.
May 28, 1998.

SUMMARY

A city filed an administrative mandamus action against the Commission on State Mandates, seeking a determination that an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, was a state mandate to which the city was entitled to reimbursement under Cal. Const., art. XIII B, § 6, which applies when a state law establishes a new program or higher level of service payable by local governments. The amendment eliminated local safety members of PERS from the coordination provisions for death benefits payable under workers' compensation and under PERS, whereby survivors of a local safety member of PERS who are killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. The trial court denied the petition, finding that the amendment created an increased cost but not an increased level of service by local governments. (Superior Court of Sacramento County, No. 96CS03417, James Timothy Ford, Judge.)

The Court of Appeal affirmed. The court held that although the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did the amendment impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. Local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. The court also held that assembly bill analyses stating that the amendment was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review, and has provided that the initial determination by Legislative Counsel is not binding on the commission. (Opinion by Morrison, J., with Puglia, P. J., and Nicholson, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Administrative Law § 138--Judicial Review and Relief--Appellate Court-- Standard--Decision of Commission on State Mandates.
Under Gov. Code, § 17559, a proceeding to set aside a decision of the Commission on State Mandates on a claim may be commenced on the ground that the commission's decision was not supported by substantial evidence. Where the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, review on appeal is generally the same. However, the appellate court independently reviews the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. The question of whether a law is a state-mandated program or a higher level of service under Cal. Const., art. XIII B, § 6, is a question of law that is reviewed de novo.

(2a, 2b, 2c)
State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Workers' Compensation Death Benefits Payable to Local Safety Members.
An amendment to Lab. Code, § 4707, to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for

death benefits payable under workers' compensation and under PERS, whereby the survivors of a local safety member of PERS who is killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter, did not mandate a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under Cal. Const., art. XIII B, § 6. Although the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did it impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers.

(3a, 3b)
State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Purpose.
Cal. Const., art. XIII B, § 6, which requires a subvention of funds to reimburse local governments when a state law mandates a new program or higher level of service on local governments, was intended to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 123A.]

(4)
Statutes § 43--Construction--Aids--Legislative Analysis--Reimbursement for State Mandates--Legislative Intent.
Assembly bill analyses of an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, stating that it was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review (Gov. Code, §§ 17500, 17559) and has provided that the initial determination by legislative counsel is not binding on the commission (Gov. Code, § 17575).

COUNSEL
Nossaman, Guthner, Knox & Elliott, Robert J. Sullivan, Stephen P. Wilman, John T. Kennedy and Scott N. Yamaguchi for Plaintiff and Appellant.
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Gary D. Hori and Shawn D. Silva for Defendant and Respondent.
Daniel E. Lungren, Attorney General, Linda A. Cabatic, Assistant Attorney General, Marsha Bedwell and Shelleyanne W. L. Chang, Deputy Attorneys General, for Real Party in Interest and Respondent. ***1193**

MORRISON, J.

Chapter 478 of the Statutes of 1989 (chapter 478) amended Labor Code section 4707 to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for death benefits payable under workers' compensation and under PERS. As a result, the survivors of a local safety member of PERS who is killed in the line of duty receives both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. This proceeding presents the question whether chapter 478 mandates a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under article XIII B section 6 of the California Constitution. We conclude that chapter 478 is not a state mandate requiring reimbursement and affirm the judgment.

Factual and Procedural Background

The workers' compensation system provides for death benefits payable to the deceased employee's survivors. (Lab. Code, § 4700 et seq.) There are also preretirement death benefits under PERS. (Gov. Code, § 21530 et seq.) There is a special death benefit under PERS if the death

was industrial and the deceased was a patrol, state peace officer/firefighter, state safety officer, state industrial, or local safety member. (Gov. Code, § 21537.) Labor Code section 4707 provides a coordination or offset for workers' compensation death benefits when the special death benefit under PERS is payable. In such cases, no workers' compensation death benefit, other than burial expenses, is payable, except that if the PERS special death benefit is less than the workers' compensation death benefit, the difference is paid as a workers' compensation death benefit. The total death benefit is equal to the greater of the PERS special death benefit or the workers' compensation benefit, not the combination of the two death benefits.

Prior to 1989, Labor Code section 4707 provided in part: ”No benefits, except reasonable expenses of burial ... shall be awarded under this division on account of the death of an employee who is a member of the Public Employees' Retirement System unless it shall be determined that a special death benefit ... will not be paid by the Public Employees' Retirement System to the widow or children under 18 years of age, of the deceased, on account of said death, but if the total death allowance paid to said widow and children shall be less than the benefit otherwise payable under this division such widow and children shall be entitled, under this division, to the difference.“ (Stats. 1977, ch. 468, § 4, pp. 1528-1529.) ***1194**

Chapter 478 amended Labor Code section 4707 to make technical changes, to provide the death benefit is payable to the surviving spouse rather than to the widow, and to add subdivision (b). Subdivision (b) of Labor Code section 4707 reads: ”The limitation prescribed by subdivision (a) shall not apply to local safety members of the Public Employees' Retirement System.“ (Stats. 1989, ch. 478, § 1, p. 1689.)

In 1992, David Haynes, a police officer for the City of Richmond (Richmond), was killed in the line of duty. Officer Haynes was a local safety member of PERS. His wife and children received the PERS special death benefit; they also received a death benefit under workers' compensation.

Richmond filed a test claim with the Commission on State Mandates (the Commission), contending chapter 478 created a state-mandated local cost. [1] Richmond sought reimbursement of the cost of the workers' compensation death benefit, estimated to be $295,432. As part of its test claim, Richmond included legislative history of chapter 478, purporting to show a legislative intent to create a reimbursable state mandate.

The Commission denied the test claim. It found that chapter 478 dealt with workers' compensation benefits and case law held that workers' compensation laws are laws of general application and not subject to section 6 of article XIII B of the California Constitution. It noted the legislative history containing analyses that chapter 478 was a state mandate had been prepared before the issuance of *City of Sacramento v. State of California* (1990) 50 Cal.3d 51 [266 Cal.Rptr. 139, 785 P.2d 522].

Richmond filed a petition for a writ of administrative mandate under Code of Civil Procedure section 1094.5, seeking to compel the Commission to approve its claim. Both the Commission and the Department of Finance, as real parties in interest, responded. The court denied the petition, finding chapter 478 created an increased cost but not an increased level of service by local governments.

Discussion

I

([1]) Under Government Code section 17559, a proceeding to set aside the Commission's decision on a claim may be commenced on the ground that the Commission's decision is not supported by substantial evidence. Where ***1195** the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, our review on appeal is generally the same. (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814 [38 Cal.Rptr.2d 304].) However, we independently review the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810 [53 Cal.Rptr.2d 521].) The question of whether chapter 478 is a state-mandated program or higher level of service under article XIII B, section 6 of the California Constitution is a question of law we review de novo. (45 Cal.App.4th at p. 1810.)

With certain exceptions not relevant here, ”Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse

such local government for the costs of such program or increased level of service ....“ (Cal. Const. art. XIII B, § 6, (hereafter referred to as section 6).)

In *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202], the Supreme Court considered whether laws increasing the amount employers, including local governments, had to pay in certain workers' compensation benefits were a reimbursable ”higher level of service“ under section 6. The court looked to the intent of the voters in adopting the constitutional provision by initiative. (43 Cal.3d at p. 56.) Noting that the phrase ”higher level of service“ is meaningless alone, the court found it must be read in conjunction with the phrase ”new program.“ The court concluded, ”that the drafters and the electorate had in mind the commonly understood meanings of the term-programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.“ (*Ibid.*)

([2a]) Richmond contends chapter 478 meets both tests to qualify as a program under section 6. Richmond contends increased death benefits are provided to generate a higher quality of local safety officers and thus provide the public with a higher level of service. Richmond argues that providing increased death benefits to local safety workers is analogous to providing protective clothing and equipment for fire fighters. In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 [234 Cal.Rptr. 795], executive orders requiring updated protective clothing and equipment for firefighters were found to be reimbursable state mandates under section 6. The executive orders applied only to fire protection, a peculiarly governmental function. The court noted that police and fire ***1196** protection are two of the most essential and basic functions of local government. (190 Cal.App.3d at p. 537.) Richmond urges that since chapter 478 applies only to local safety members, it is also a state mandate directed to a peculiarly local governmental function.

In *Carmel Valley Fire Protection Dist. v. State of California*, *supra*, 190 Cal.App.3d 521, the executive order required updated equipment for the fighting of fires. The use of this equipment would result in more effective fire protection and thus would provide a higher level of service to the public. Here chapter 478 addresses death benefits, not the equipment used by local safety members. Increasing the cost of providing services cannot be equated with requiring an increased level of service under a section 6 analysis. A higher cost to the local government for compensating its employees is not the same as a higher cost of providing services to the public. (*City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484 [235 Cal.Rptr. 101] [temporary increase in PERS benefit to retired employees which resulted in higher contribution rate by local government was not a program or service under section 6].) In *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, the increase in certain workers' compensation benefits resulted in an increase in the cost to local governments of providing services. Nonetheless, the Supreme Court found no ”higher level of service“ under section 6. Similarly, a new requirement for mandatory unemployment insurance for local government employees, an increase in the cost of providing services, was not a ”new program“ or ”higher level of service“ in *City of Sacramento v. State of California, supra,* 50 Cal.3d 51, 66-70. Chapter 478 fails to meet the first test of a ”program“ under section 6.

Richmond urges chapter 478 meets the second test of a program under section 6 because it imposed a unique requirement on local governments that was not applicable to all residents and entities within the state. (*County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56.) Richmond argues that only local governments have ”local safety members“ and chapter 478 required double death benefits, both PERS and workers' compensation, for this specific group of employees. By requiring double death benefits for local safety members, chapter 478 imposed a unique requirement on local government.

The Commission takes a different view of chapter 478. First, it argues that chapter 478 addresses an aspect of workers' compensation law, which, under *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, is a law of general application to which section 6 does not apply. The Commission argues chapter 478 imposes no unique requirement; it merely ***1197** eliminates the previous exemption from providing workers' compensation death benefits to local safety members. As such, chapter 478 simply puts local government employers on the same footing as all other nonexempt employers, requiring that they provide the workers' compensation death benefit. That chapter 478 affects only local government does

not compel the conclusion that it imposes a unique requirement on local government. The Commission contends Richmond's view of chapter 478 is too narrow; the law must be considered in its broader context.

While Richmond's argument has surface appeal, we conclude the Commission's view is the correct one. Section 6 was designed to prevent the state from forcing programs on local government. ([3a]) "[T]he intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not passed by the Legislature to 'force' programs on localities." (*County of Los Angeles v. State of California, supra*, 43 Cal.3d at pp. 56-57.) "The goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending. [Citation.] Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs. Neither of these goals is frustrated by requiring local agencies to provide the same protections to their employees as do private employers. Bearing the costs of salaries, unemployment insurance, and workers' compensation coverage-costs which all employers must bear-neither threatens excessive taxation or governmental spending, nor shifts from the state to a local agency the expense of providing governmental services. " (*Id.* at p. 61.)

Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. In *City of Sacramento v. State of California, supra*, 50 Cal.3d 51, the Legislature enacted a statute requiring local governments to participate in the state's unemployment insurance system on behalf of their employees. Local entities made a claim for reimbursement. First, the Supreme Court found that like an increase in workers' compensation benefits, a requirement to provide unemployment insurance did not compel new or increased "service to the public" at the local level. (*Id.* at pp. 66-67.) The court next addressed whether the new law imposed a unique requirement on local governments.

"Here, the issue is whether costs *unrelated* to the provision of public services are *nonetheless* reimbursable costs of government, because they are ***1198** imposed on local governments 'unique[ly],' and not merely as an incident of compliance with general laws. State and local governments, and nonprofit corporations, had previously enjoyed a special *exemption* from requirements imposed on most other employers in the state and nation. Chapter 2/78 merely eliminated the exemption and made these previously exempted entities subject to the general rule. By doing so, it may have imposed a requirement 'new' to local agencies, but that requirement was not 'unique.' [¶] The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision." (*City of Sacramento v. State of California, supra*, 50 Cal.3d 51, 68-69, italics in original.)

Richmond argues that Labor Code section 4707, prior to chapter 478, was not an exemption from workers' compensation, relying on *Jones v. Kaiser Industries Corp.* (1987) 43 Cal.3d 552 [237 Cal.Rptr. 568, 737 P.2d 771]. In *Jones,* the plaintiff, a city police officer, was killed in a traffic accident while on duty. His survivors brought suit against the city, contending it has created and maintained a dangerous condition at the intersection where the accident occurred. Plaintiffs argued their suit was not barred by the exclusivity provisions of workers' compensation because they did not receive a workers' compensation death benefit under Labor Code section 4707. The court rejected this argument. First, plaintiffs did receive a benefit under workers' compensation in the form of burial expenses. Further, Labor Code section 4707 was designed not to exclude plaintiffs from receiving workers' compensation benefits, but to assure they received the maximum benefit under either PERS or workers' compensation. (43 Cal.3d at p. 558.)

Under *Jones* v. *Kaiser Industries Corp*., *supra*, 43 Cal.3d 552, one receiving a special death benefit under PERS rather than the workers' compensation death benefit is not considered exempt from workers' compensation for purposes of its exclusivity provisions, precluding a suit against the employer for negligence. This conclusion does not affect the analysis that chapter 478, by removing the

offset provisions for employers of local safety members, merely makes local governments "indistinguishable in this respect from private employers." (*County of Los Angeles v. State of California*, *supra,* 43 Cal.3d at p. 58.)

([2b]) Richmond's error is in viewing chapter 478 from the perspective of what the final result is, rather than from the perspective of what the law mandates. ([3b]) "We recognize that, as is made indisputably clear from ***1199** the language of the constitutional provision, local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state." (*Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835 [244 Cal.Rptr. 677, 750 P.2d 318].) ([2c]) While the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments.

Further, the view that the Legislature was proceeding by stages in enacting chapter 478 finds support in the history of the nearly identical predecessor to chapter 478, Assembly Bill No. 1097 (1987-1988 Reg. Sess.). Assembly Bill No. 1097 was passed in 1988, but was vetoed by the Governor. While the final version of Assembly Bill No. 1097 was virtually identical to chapter 478 in adding subdivision (b) to Labor Code section 4707 (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended Mar. 22, 1988), the bill was very different when it began. The initial version of Assembly Bill No. 1097 repealed Labor Code section 4707 in its entirety. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) introduced Mar. 2, 1987.) The next version made Labor Code section 4707 applicable only to state members of PERS. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended June 15, 1987.) The final version left Labor Code section 4707 applicable to all but local safety members of PERS.

II

([4]) As part of its test claim, Richmond included portions of the legislative history of chapter 478 to show the Legislature intended to create a state mandate. This history includes numerous bill analyses by legislative committees that state the bill creates a state-mandated local program.

Government Code section 17575 requires the Legislative Counsel to determine if a bill mandates a new program or higher level of service under section 6. If the Legislative Counsel determines the bill will mandate a new program or higher level of service under section 6, the bill must contain a section specifying that reimbursement shall be made from the state mandate fund, that there is no mandate, or that the mandate is being disclaimed. (Gov. Code, § 17579.) The Legislative Counsel found that chapter 478 imposed ***1200** a state-mandated local program. The enacted statute provided: "Notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement does not exceed one million dollars ($1,000,000), reimbursement shall be made from the State Mandates Claims Fund." (Stats. 1989, ch. 478, § 2, p. 1689.)

One analysis concluded this language was technically deficient because it does not contain a specific acknowledgment that the bill is a state mandate. Reimbursement could not be made until the Commission held a hearing on a test claim. The analysis concluded it "should not be a serious problem because the information provided in this analysis could also be provided to the Commission on State Mandates if any local agency submits a claim for reimbursement to that Commission."

Another analysis suggested including an appropriation to avoid the necessity of the Commission having to determine that the bill was a mandate.

Richmond argues this legislative history shows the Legislature intended chapter 478 to be a state mandate and that it should be considered in making that determination. Amici curiae submitted a brief urging that case law holding that legislative history is irrelevant to the issue of whether there is a state-mandated new program or higher level of service under section 6 is wrongly decided. [2] Amici curiae argue that the intent of the Legislature should

control. They further note that the legislative history of chapter 478 shows that the initial opposition of the League of California Cities was dropped after the bill was amended to ensure reimbursement, and that the Governor signed the bill after he had vetoed a similar one that was not considered a state mandate. Amici curiae argue that to ignore the widespread understanding that the bill created a state mandate would undermine the legislative process.

In *County of Los Angeles v. Commission on State Mandates, supra,* 32 Cal.App.4th 805, plaintiff sought reimbursement for costs incurred under Penal Code section 987.9 for providing certain services to indigent criminal defendants. Plaintiff argued the Legislature's initial appropriation of funds to cover the costs incurred under Penal Code section 987.9 was a final and ***1201** unchallengeable determination that section 987.9 constituted a state mandate. The court rejected this argument. "The findings of the Legislature as to whether section 987.9 constitutes a state mandate are irrelevant." (32 Cal.App.4th at p. 818.)

The court, relying on *Kinlaw v. State of California* (1991) 54 Cal.3d 326 [285 Cal.Rptr. 66, 814 P.2d 1308], found the Legislature had created a comprehensive and exclusive procedure for implementing and enforcing section 6. (*County of Los Angeles v. Commission on State Mandates, supra*, 32 Cal.App.4th at pp. 818-819.) This procedure is set forth in Government Code section 17500 et seq. "[T]he statutory scheme contemplates that the Commission, as a quasi-judicial body, has the sole and exclusive authority to adjudicate whether a state mandate exists. Thus, any legislative findings are irrelevant to the issue of whether a state mandate exists, and the Commission properly determined that no state mandate existed." (32 Cal.App.4th at p. 819.)

In *City of San Jose v. State of California, supra,* 45 Cal.App.4th 1802, 1817-1818, the court relied upon *County of Los Angeles v. Commission on State Mandates*, *supra,* 32 Cal.App.4th 805, in rejecting the argument that the determination by Legislative Counsel that a bill imposed a state mandate was entitled to deference.

Amici curiae contend these cases are wrong because they ignore the cardinal rules of statutory construction that courts must construe statutes to conform to the purpose and intent of lawmakers and that the intent of the Legislature should be ascertained to effectuate the purpose of the law.

Amici curiae are correct that " 'the objective of statutory interpretation is to ascertain and effectuate legislative intent.' [Citation.]" (*Trope v. Katz* (1995) 11 Cal.4th 274, 280 [45 Cal.Rptr.2d 241, 902 P.2d 259].) Where such intent is not clear from the language of the statute, we may resort to extrinsic aids, including legislative history. (*People v. Coronado* (1995) 12 Cal.4th 145, 151 [48 Cal.Rptr.2d 77, 906 P.2d 1232].) Here, however, the issue is not the interpretation of Labor Code section 4707. The parties agree it requires that the survivors of local safety members killed due to an industrial injury receive both the special death benefit under PERS and the workers' compensation death benefit. Rather, the issue is whether section 6 requires reimbursement for the costs incurred by local governments under chapter 478. The Legislature has entrusted that determination to the Commission, subject to judicial review. (Gov. Code, §§ 17500, 17559.) It has provided that the initial determination by Legislative Counsel is not binding on the Commission. (*Id.*, § 17575.) Indeed, the language of chapter 478 recognizes that the determination of whether the bill is a state mandate lies with ***1202** the Commission. It reads, "*if* the Commission on State Mandates determines that this act contains costs mandated by the state, ..." (Stats. 1989, ch. 478, § 2, p. 1689, italics added.) While the legislative history of chapter 478 may evince the understanding or belief of the Legislature that chapter 478 created a state mandate, such understanding or belief is irrelevant to the issue of whether a state mandate exists. (*County of Los Angeles v. Commission on State Mandates, supra*, 32 Cal.App.4th 805, 819.)

Disposition

The judgment is affirmed.

Puglia, P. J., and Nicholson, J., concurred.

Appellant's petition for review by the Supreme Court was denied August 19, 1998. ***1203**

Footnotes

1 ” 'Test claim' means the first claim filed with the commission alleging that a particular statute or executive order imposes costs mandated by the state.“ (Gov. Code, § 17521.)

2 The California State Association of Counties, and the Cities of Carlsbad, Cudahy, Montebello, Monterey, Redlands, San Luis Obispo and San Pablo filed an amici curiae brief in support of Richmond.

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Implied Overruling Recognized by Hayes v. Commission on State Mandates, Cal.App. 3 Dist., December 30, 1992

50 Cal.3d 51, 785 P.2d 522, 266 Cal.Rptr. 139

CITY OF SACRAMENTO et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et al., Defendants and Respondents

No. S006188.
Supreme Court of California
Jan 29, 1990.

SUMMARY

A city and a county filed claims with the State Board of Control seeking subvention of the costs imposed on them by Stats. 1978, ch. 2, which extended mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations. The board denied the claims, ruling that Stats. 1978, ch. 2, did not enact a state-mandated program for which reimbursement was required under Cal. Const., art. XIII B. On mandamus the trial court overruled the board and found the cost reimbursable, and the Court of Appeal affirmed. On remand, the board determined the amounts due on the claims originally submitted; however, the Legislature failed to appropriate the necessary funds for disbursement. The city then commenced a class action against the state on behalf of all local governments in the state. The complaint sought injunctive and declaratory relief barring enforcement of Stats. 1978, ch. 2, in the absence of state subvention; a writ of mandate directing that past, current, and/or future subvention funds be appropriated and disbursed, and/or that the Employment Development Department pay local agencies' past, current, and future unemployment insurance contributions from its own budget; and damages for past failures to reimburse. The trial court granted summary judgment for the state. (Superior Court of Sacramento County, No. 331607, Darrel W. Lewis, Judge.) The Court of Appeal, Third Dist., No. C002265, reversed.

The Supreme Court reversed the judgment of the Court of Appeal. The court held that the trial court did not err in granting summary judgment for the state on the ground that the local costs of providing unemployment insurance coverage were not subject to subvention under Cal. Const., art. XIII B, or parallel statutes (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§ 17514, 17561, subd. (a)). The state had not compelled provision of new or increased "service to the public" at the local level, nor had it imposed a state policy "uniquely" on local governments. However, the court held, Stats. 1978, ch. 2, implemented a federal "mandate" within the meaning of Cal. Const., art. XIII B, and prior statutes restraining local taxation; thus, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by Stats. 1978, ch. 2, may tax and spend as necessary to meet the expenses required to comply with that legislation. (Opinion by Eagleson, J., with Lucas, C. J., Mosk, Broussard, Panelli and Kennard, JJ., concurring. Separate concurring and dissenting opinion by Kaufman, J., concurring in the judgment.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Property Taxes § 7.5--Constitutional Provisions; Statutes and Ordinances--Real Property Tax Limitation--Exemptions for Federally Mandated Costs.
To the extent that a "federally mandated" cost is exempt from prior statutory limits on local taxation, Cal. Const., art. XIII A, restricting the assessment and taxing powers of state and local governments, eliminates the exemption insofar as it would allow levies in excess of the constitutional ceiling.

(2)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Exhaustion of Remedies.
A class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, was not barred by any failure of plaintiffs to

exhaust their remedies. The city and a county had filed timely claims for reimbursement of expenses incurred, to comply with Stats. 1978, ch. 2. When the State Board of Control initially denied the claims, the city and the county pursued judicial remedies, culminating in a Court of Appeal opinion concluding that reimbursement was required. The board then upheld the claims. Insofar as the Legislature thereafter declined to appropriate the necessary funds for disbursement, the city and the county were authorized to bring an enforcement action.

(3a, 3b)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Remedies Available.
Cal. Const., art. XIII, § 32, precluding any suit to enjoin or impede collection of a tax, did not bar a class action brought by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B. The state contended that the only remedy open to the city was to pay its unemployment "taxes" and then seek a "refund" under the "exclusive" procedures set forth in the Unemployment Insurance Code. However, the city was not challenging, directly or indirectly, the validity or application of the unemployment insurance law as such, or the propriety of any "tax" assessed thereunder; rather, it claimed that all its costs of affording unemployment compensation to its employees were subject to a statutory and constitutional subvention that the state refused to make. For the same reasons, the city's claim for reimbursement for past expenses was not barred.

(4)
Constitutional Law § 40--Distribution of Governmental Powers--Between Branches of Government--Judicial Power.
Under the separation of powers doctrine, the Legislature cannot be compelled to appropriate or authorize the disbursement of specific funds.

[See **Am.Jur.2d,** Constitutional Law, § 316.]

(5a, 5b, 5c)
Judgments § 81--Res Judicata--Collateral Estoppel--Public-interest Exception--Reimbursement to Local Governments for Unemployment Insurance Costs.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, the state was not collaterally estopped from litigating the reimbursement issue. The city and a county had previously brought an action against the state, culminating in a Court of Appeal opinion concluding that reimbursement was required. The Legislature then declined to appropriate the necessary funds for disbursement. Even if the formal prerequisites for collateral estoppel were present, the public-interest exception to that doctrine governed, since strict application of the doctrine would foreclose any reexamination of the earlier holding, and the consequences of any error transcended those that would apply to mere private parties.

(6)
Judgments § 81--Res Judicata--Collateral Estoppel--Questions of Law.
Generally, collateral estoppel bars a party to a prior action, or one in privity with him, from relitigating issues finally decided against him in the earlier action. However, when the issue is a question of law rather than of fact, the prior determination is not conclusive either if injustice would result or if the public interest requires that relitigation not be foreclosed.

(7)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Summary Judgment--Effect of Failure of Moving Party to Challenge Prior Summary Adjudication of Issues.
In a class action by a city, on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level

of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, the trial court did not lack the power to grant summary judgment for the state on the authority of a newly decided California Supreme Court case. The trial court had previously granted the city's motion for summary adjudication of issues, and the state had failed to seek timely mandamus review of that prior, contrary order. However, failure to challenge a summary adjudication order by the discretionary avenue of writ review cannot foreclose a party from asserting subsequent changes in law that render such a pretrial order incorrect.

(8)
Judgments § 68--Res Judicata--Identity of Parties--Class Action--Where Prior Action Involved Individual Claims.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, res judicata did not preclude examination of an earlier Court of Appeal opinion, in an action by the city and a county, concluding that reimbursement was required. The issues presented in the current action were not limited to the validity of any finally adjudicated individual claims; rather, they encompassed the question of the state's subvention obligations in general under Stats. 1978, ch. 2.

(9a, 9b)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--State-mandated Programs--Unemployment Insurance Costs.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state was required under Cal. Const., art. XIII B, the trial court did not err in granting summary judgment for the state on the ground that the local costs of providing such coverage were not subject to subvention under Cal. Const., art. XIII B, or parallel statutes (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§ 17514, 17561, subd. (a)). The state had not compelled provision of new or increased "service to the public" at the local level, nor had it imposed a state policy "uniquely" on local governments. The phrase, "To force programs on local governments," in the voters' pamphlet relating to Cal. Const., art. XIII B, § 6, confirmed that the intent underlying that section was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities.

[See **Cal.Jur.3d,** State of California, § 78.]

(10)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--State-mandated Programs.
The concepts of reimbursable state-mandated costs in Cal. Const., art. XIII B, requiring that the state reimburse local governments for the costs of state-mandated new programs or higher levels of service, and Rev. & Tax. Code, former §§ 2207, 2231, are identical.

(11a, 11b, 11c)
State of California § 11--Fiscal Matters-- Reimbursement to Local Governments--Federally Mandated Programs--Unemployment Insurance Costs.
Stats. 1978, ch. 2, extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations, implemented a federal "mandate" within the meaning of Cal. Const., art. XIII B, and prior statutes restricting local taxation; thus, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by Stats. 1978, ch. 2, may tax and spend as necessary to meet the expenses required to comply with that legislation. In enacting Stats. 1978, ch. 2, the state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses; the alternatives were so far beyond the realm of practical reality that they left the state "without discretion" to depart from federal standards. (Disapproving, insofar as it is inconsistent with this analysis, the decision in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258].)

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(12)
Constitutional Law § 11--Construction of Constitutions--Liberality and Flexibility.
Constitutional enactments must receive a liberal, practical commonsense construction that will meet changed conditions and the growing needs of the people. While a constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words, the literal language of enactments may be disregarded to avoid absurd results and to fulfill the apparent intent of the framers.

(13)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--Federally Mandated Programs.
In determining whether a program is federally mandated, to exempt its cost from a local government's statutory taxation limit (Rev. & Tax. Code, § 2271), and to exclude any appropriation required to comply with the mandate from the constitutional spending limit of the affected entity (Cal. Const., art. XIII B, § 9, subd. (b)), the result will depend on the nature and purpose of the federal program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal. The courts and the Commission on State Mandates must respect the governing principle of Cal. Const., art. XIII B, § 9, subd. (b): neither state nor local agencies may escape their spending limits when their participation in federal programs is truly voluntary.

COUNSEL
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De Witt W. Clinton, County Counsel (Los Angeles), Amanda F. Susskind, Deputy County Counsel, Kitt Berman, Ross & Scott and William D. Ross as Amici Curiae on behalf of Defendants and Respondents. ***57**

EAGLESON, J.

In response to changes in federal law, chapter 2 of the Statutes of 1978 (hereafter chapter 2/78) extended mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations. Here we consider whether, in chapter 2/78, the state "mandate[d] a new program or higher level of service" on the local agencies, and must therefore reimburse local compliance costs under article XIII B of the California Constitution and related statutes.

We conclude that the state is *not* required to reimburse the chapter 2/78 expenses of local governments. The obligations imposed by chapter 2/78 fail to meet the "program" and "service" standards for mandatory subvention we recently set forth in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] (hereafter *County of Los Angeles*). Chapter 2/78 imposes no "unique" obligation on local governments, nor does it require them to provide new or increased governmental services to the public. The Court of Appeal decision, finding the expenses reimbursable, must therefore be reversed.

However, our holding does not leave local agencies powerless to counter the fiscal pressures created by chapter 2/78. Though provisions of the Revenue and Taxation Code limit local property tax levies, and article XIII B itself places spending limits on both state and local governments, "costs mandated by the federal government" are expressly excluded from these ceilings. Chapter 2/78 imposes such "federally mandated" costs, because it was adopted by the state under federal coercion tantamount to compulsion. Hence, subject to overriding limitations on taxation rates (see, e.g., Cal. Const., art. XIII A), both state and local governments may levy and spend for their chapter 2/78 coverage obligations without reduction of the fiscal limits applicable to other needs and services.

I. Facts.

In 1972, and again in 1973, the Legislature enacted comprehensive schemes for local property tax relief. Though frequently amended thereafter, these statutes retained three principal features. First, they placed a limit on the local property tax rate. Second, they required the *state* to reimburse local governments for their costs resulting from state laws "which mandate ... new program[s] or ... increased level[s] of service" at the local level. Finally, they allowed local governments to

exceed their property taxation limits to fund certain other nondiscretionary expenses, including "costs mandated by the federal government." (Stats. 1972, ch. 1406, § 14.7, pp. ***58** 2961-2967; Stats. 1973, ch. 358, § 3, pp. 783-790; Rev. & Tax. Code, §§ 2206, 2260 et seq., 2271; former §§ 2164.3, 2165, 2167, 2169, 2207, 2231; Gov. Code, § 17500 et seq.)

Since adoption of the Social Security Act in 1935, federal law has provided powerful incentives to enactment of unemployment insurance protection by the individual states. In current form, the Federal Unemployment Tax Act (hereafter FUTA) (26 U.S.C. § 3301 et seq.) assesses an annual tax upon the gross wages paid by covered private employers nationwide. The tax rate, which has varied over the years, stands at 6.2 percent for calendar year 1990. (26 U.S.C. §§ 3301(1), 3306.) However, employers in a state with a federally "certified" unemployment insurance program may credit their contributions to the state system against up to 90 percent of the federal tax (currently computed at 6 percent for this purpose). (*Id.*, §§ 3302-3304.) A "certified" state program also qualifies for federal administrative funds. (42 U.S.C. §§ 501-503.)

California enacted its unemployment insurance system "on the eve of the adoption of the Social Security Act" in 1935 (*Steward Machine Co.* v. *Davis* (1937) 301 U.S. 548, 587-588 [81 L.Ed. 1279, 1291-1292, 57 S.Ct. 883, 109 A.L.R. 1293]; see Stats. 1935, ch. 352, § 1 et seq., p. 1226 et seq.) and has sought to maintain federal compliance ever since. Every other state has also adopted an unemployment insurance plan in response to the federal stimulus.

In 1976, Congress enacted Public Law number 94-566 (hereafter Public Law 94-566). Insofar as pertinent here, Public Law 94-566 amended FUTA to require for the first time that a "certified" state plan include coverage of the employees of public agencies. (Pub.L. No. 94-566 (Oct. 20, 1976) § 115(a), 90 Stat. 2670; 26 U.S.C. §§ 3304(a)(6)(A), 3309(a); see 26 U.S.C. § 3306(c)(7).) States which did not alter their unemployment compensation laws accordingly faced loss of the federal tax credit and administrative subsidy.

The Legislature thereafter adopted chapter 2/78 to conform California's system to Public Law 94-566. Among other things, chapter 2/78 effectively requires the state and all local governments, beginning January 1, 1978, to participate in the state unemployment insurance system on behalf of their employees. (Stats. 1978, ch. 2, §§ 12, 24, 31, 36.5, 58-61, pp. 12-14, 16, 18, 24-27; Unemp. Ins. Code, §§ 135, subd. (a), 605, 634.5, 802-804.)

In November 1979, the voters adopted Proposition 4, adding article XIII B to the state Constitution. ([1]) **(See fn. 1.)** Article XIII B - the so-called "Gann limit" - restricts the amounts state and local governments may ***59** appropriate and spend each year from the "proceeds of taxes." (§§ 1, 3, 8, subds. (a)-(c).) [1] In language similar to that of earlier statutes, article XIII B also requires state reimbursement of resulting local costs whenever, after January 1, 1975, "the Legislature or any state agency mandates a new program or higher level of service on any local government, ..." (§ 6.) Such mandatory state subventions are excluded from the local agency's spending limit, but included within the state's. (§ 8, subds. (a), (b).) Finally, article XIII B excludes from either the state or local spending limit any "[a]ppropriations required for purposes of complying with mandates of the courts *or the federal government* which, *without discretion*, require an expenditure for additional services or which *unavoidably* make the providing of existing services more costly." (§ 9, subd. (b) [hereafter section 9(b)], italics added.)

The City of Sacramento (City) and the County of Los Angeles (County) filed claims with the State Board of Control (Board) (see Rev. & Tax. Code, former § 2250 et seq.; see now Gov. Code, § 17550 et seq.) seeking state subvention of the costs imposed on them by chapter 2/78 during 1978 and portions of 1979. The Board denied the claims, ruling that chapter 2/78 was an enactment required by federal law and thus was not a reimbursable state mandate. On mandamus (Code Civ. Proc., § 1094.5; Rev. & Tax. Code, former § 2253.5; see now Gov. Code, § 17559), the Sacramento Superior Court overruled the Board and found the costs reimbursable. The court ordered the Board to determine the amounts of the City's and the County's individual claims, and also to adopt "parameters and guidelines" to be applied in determining "these ... and other claims" arising under chapter 2/78. (Rev. & Tax. Code, former § 2253.2; see now Gov. Code, §§ 17555, 17557.) [2]

In *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258] (hereafter *Sacramento I*), the Court of Appeal affirmed. Among other things, the court concluded (pp. 194-199) that chapter 2/78

***60** imposed *state*-mandated costs reimbursable under section 6 of article XIII B, since the potential loss of federal funds and tax credits did not render Public Law 94-566 so coercive as to constitute a "[*mandate*] ... of the *federal* government" under section 9(b). (Italics added.) We denied hearing.

On remand, the Board determined the amounts due on the claims originally submitted by the City and the County. As required by the judgment, the Board also adopted "parameters and guidelines" for reimbursement of chapter 2/78 costs to all affected local agencies. However, during the 1984 session of the Legislature, no bills were introduced for reimbursement of pre-1984 costs, and bills to fund costs in and after 1984 failed passage.

From and after the decision in *Sacramento I*, the City paid "under protest" its quarterly billings from the Employment Development Department (EDD) for unemployment compensation. Each payment included a claim for refund of unemployment taxes pursuant to Unemployment Insurance Code section 1176 et seq. EDD responded to the refund claims by referring the City to its statutory subvention remedies.

Accordingly, in July 1985, the City began returning its quarterly billings unpaid. It thereupon commenced the instant class action in Sacramento Superior Court on behalf of all local governments in the state. Named as defendants were the State of California, the Governor, EDD, the state Controller and Treasurer, and the Legislature. The complaint sought (1) injunctive and declaratory relief barring enforcement of chapter 2/78 in the absence of state subvention; (2) a writ of mandate directing that past, current, and future subvention funds be appropriated and disbursed, and/or that EDD pay local agencies' past, current, and future unemployment-insurance contributions from its own budget; and (3) damages for past failures to reimburse.

Shortly after this suit was filed, the Legislature appropriated some chapter 2/78 funds for fiscal year 1984-1985 (Stats. 1985, ch. 1217, §§ 12, 17, subd. (b), pp. 4148, 4150), and it subsequently authorized limited funds in the 1986 Budget Act (Stats. 1986, ch. 186, § 2.00, p. 1006). On defendants' demurrer, the trial court later dismissed plaintiffs' claims for reimbursement for these post-1984 periods.[3] Thereafter, the trial court certified the suit as a class action and granted plaintiffs' motion for summary adjudication of issues based on *Sacramento I.* ***61**

While the case remained pending at the trial level, we decided *County of Los Angeles*. There we held that article XIII B, and earlier subvention statutes, requires state reimbursement *only* when the state compels local governments to provide new or upgraded "programs that carry out the governmental function of providing *services to the public*, or ..., to implement a state policy, [the state] impose[s] *unique* requirements on local governments [that] do not apply generally to all residents and entities in the state." (43 Cal.3d at p. 56, italics added.)

Defendants in this case thereupon moved for summary judgment, urging that extension of unemployment insurance coverage to public employees satisfied neither reimbursement standard set forth in *County of Los Angeles*. The trial court agreed and awarded summary judgment.

The Court of Appeal reversed on two independent grounds. First, the court ruled that defendants were collaterally estopped by *Sacramento I* to relitigate the reimbursability of chapter 2/78 costs. Second, the court found that chapter 2/78 imposed "unique requirements" on local governments, within the meaning of *County of Los Angeles*, since the legislation was aimed solely at local agencies and subjected them to obligations from which they were previously exempt.

II. Jurisdiction; Plaintiffs' Exhaustion of Remedies.

([2]) After we granted review, we asked the parties and amici curiae[4] to brief whether the current suit is jurisdictionally barred by any failure of plaintiffs to exhaust their remedies (see *Abelleira v. District Court of Appeal* (1941) 17 Cal.2d 280, 291-295 [109 P.2d 942, 132 A.L.R. 715]), or for any other reason. If so, the summary judgment for defendants against all plaintiffs was proper notwithstanding the merits of the subvention claim. In that event, the judgment of the Court of Appeal must be reversed without consideration of the substantive issues raised by the appeal.

However, we find no failure to exhaust which would bar us from reaching the merits. Defendants concede plaintiffs exhausted all administrative remedies provided by the statutes governing subvention of state-mandated

costs. The concession appears correct, at least as to the City and the County. These two agencies filed timely claims for reimbursement of expenses incurred to comply with chapter 2/78. When the Board initially denied the claims, the City and the County pursued judicial remedies culminating in ***62** *Sacramento I*. By direction of the judgment in *Sacramento I*, the Board ultimately upheld the City's and County's 1979 claims, determined their amount, and adopted "parameters and guidelines" for statewide reimbursement that were later included in the Board's government-claims report to the Legislature. (Rev. & Tax. Code, former §§ 2253.2, 2255, subd. (a).)

These procedures exhausted the City's and the County's administrative and judicial avenues, short of this suit, to obtain redress on the claims adjudicated in *Sacramento I*. Insofar as the Legislature thereafter declined to appropriate the necessary funds for disbursement by the Controller, the City and the County were authorized to bring an enforcement action. (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b); *County of Contra Costa v. State of California* (1986) 177 Cal.App.3d 62, 72 [222 Cal.Rptr. 750]; see *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 548-549 [234 Cal.Rptr. 795].) [5]

([3a]) Defendants urge, however, that plaintiffs essentially are seeking resolution of a "tax" question - the validity *vel non* of their unemployment tax contributions - but have failed to satisfy the special procedures applicable to such cases. Defendants insist that because article XIII, section 32, of the California Constitution broadly precludes any suit to enjoin or impede collection of a tax (e.g., *Calfarm Ins. Co. v. Deukmejian* (1989) 48 Cal.3d 805, 838-841 [258 Cal.Rptr. 161, 771 P.2d 1247]; *Western Oil & Gas Assn. v. State Bd. of Equalization* (1987) 44 Cal.3d 208, 213 [242 Cal.Rptr. 334, 745 P.2d 1360]; *Pacific Gas & Electric Co. v. State Bd. of Equalization* (1980) 27 Cal.3d 277, 279-284 [165 Cal.Rptr. 122, 611 P.2d 463]), plaintiffs' claims for declaratory and injunctive relief are barred.

The only remedy constitutionally open to plaintiffs, defendants assert, is to pay their unemployment "taxes" and then seek a "refund" under the "exclusive" procedures set forth in the Unemployment Insurance Code. (Unemp. Ins. Code, §§ 1176 et seq., 1241, subd. (a).) Insofar as plaintiffs' complaint *does* seek reimbursement for past contributions, defendants suggest, plaintiffs have not correctly pursued the Unemployment Insurance Code procedures.

We question, but do not decide, whether a *public entity's* contributions to the state unemployment insurance system can ever constitute a "tax" subject ***63** to article XIII, section 32. Even if so, defendants' claim lacks merit under the circumstances presented here.

"The policy behind [article XIII,] section 32 is to allow revenue collection to continue during [tax] litigation so that essential public services dependent on the funds are not unnecessarily disrupted. [Citation.] ...." (*Pacific Gas & Electric Co., supra*, 27 Cal.3d at p. 283.) The administrative "refund" procedures established by the unemployment insurance law are designed to ensure initial examination of unemployment tax disputes by the agency with specific expertise in that area.

However, plaintiffs attempt no challenge, direct or indirect, to the validity or application of the unemployment insurance law as such, or to the propriety of any "tax" assessed thereunder. Nor have plaintiffs bypassed the agency or procedures established to decide such disputes.

Rather, plaintiffs claim that *all* their costs of affording unemployment compensation to their employees are subject to a statutory and constitutional *subvention* which the state refuses to make. It is incidental that these costs happen to include what might be characterized as a "tax." As the subvention statutes require, plaintiffs City and County have pursued all available remedies before the agency (formerly the Board, now the Commission) created to decide *subvention* issues; that agency has upheld their submitted claims in full, but the necessary appropriations have been withheld.

Under these circumstances, the Legislature has concluded that a local entity should be forced to continue incurring the unfunded costs subject to "refund." Rather, the entity is expressly authorized to bring suit to declare such an unfunded mandate *unenforceable*. (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b).) [6]

The importance of such a remedy stems from the fundamental legislative prerogative to control appropriations. ([4]) Under the separation of powers doctrine, the Legislature cannot be compelled to

appropriate or authorize the disbursement of specific funds. (*Mandel* v. *Myers* (1981) 29 Cal.3d 531, 540 [174 Cal.Rptr. 841, 629 P.2d 935].) Since the Legislature will have demonstrated its refusal to fund a particular mandate by the time a mandamus action is filed, the literal "tax refund" process urged by defendants may often be meaningless.

([3b]) Insofar as plaintiffs also seek reimbursement for past expenses, similar considerations dictate that the governing statutes are those created ***64** to resolve subvention problems rather than garden-variety disputes over the unemployment insurance tax. [7] We find nothing in the language, history, or purpose of article XIII, section 32, or of the unemployment insurance law, which bars the instant complaint. We therefore have jurisdiction to decide whether chapter 2/78 constitutes a reimbursable mandate.

III. Collateral Estoppel; Res Judicata.

([5a]) However, *plaintiffs* claim that because *Sacramento I* "finally" decided whether chapter 2/78 constitutes a reimbursable state mandate, the *state* and its agents are collaterally estopped from relitigating the issue here. The Court of Appeal agreed that the doctrine of collateral estoppel applies. Under the circumstances, we are not persuaded.

([6]) Generally, collateral estoppel bars the party to a prior action, or one in privity with him, from relitigating issues finally decided against him in the earlier action. (*Clemmer v. Hartford Insurance Co.* (1978) 22 Cal.3d 865, 874 [151 Cal.Rptr. 285, 587 P.2d 1098].) "... But when the issue is a question of law rather than of fact, the prior determination is not conclusive either if injustice would result or if the public interest requires that relitigation not be foreclosed. [Citations.] ...." (*Consumers Lobby Against Monopolies v. Public Utilities Com.* (1979) 25 Cal.3d 891, 902 [160 Cal.Rptr. 124, 603 P.2d 41].)

([5b]) Even if the formal prerequisites for collateral estoppel are present here, the public-interest exception governs. Whether chapter 2/78 costs are reimbursable under article XIII B and parallel statutes constitutes a pure question of law. The *state* was the losing party in *Sacramento I*, and also the only entity legally affected by that decision. Thus, strict application of collateral estoppel would foreclose any reexamination of the holding of that case. The state would remain bound, and no other person would have occasion to challenge the precedent.

Yet the consequences of any error transcend those which would apply to mere private parties. If the result of *Sacramento I* is wrong but unimpeachable, taxpayers statewide will suffer unjustly the consequences of the state's continuing obligation to fund the chapter 2/78 costs of local agencies. On the other hand, if the state fails to appropriate the funds to meet this ***65** obligation, and chapter 2/78 therefore cannot be enforced (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b)), the resulting failure to comply with federal law could cost California employers millions. [8] ([7]) **(See fn. 9.)**, ([5c]) Under these circumstances, neither stare decisis nor collateral estoppel can permanently foreclose our ability to examine the reimbursability of chapter 2/78 costs. [9]

([8]) As below, plaintiffs also argue that reconsideration of *Sacramento I* is precluded by res judicata. They suggest that the prior litigation resolved not only the *legal issues* presented by this appeal, but all *claims* among the current parties as well.

Of course, res judicata and the rule of final judgments bar us from disturbing individual claims or causes of action, on behalf of specific agencies, which have been finally adjudicated and are no longer subject to review. (Code Civ. Proc., § 1908 et seq.; *Slater, supra*, 15 Cal.3d at p. 796; *Bernhard v. Bank of America* (1942) 19 Cal.2d 807, 810 [122 P.2d 892].) However, the issues presented in the current action are not limited to the validity of any such finally adjudicated individual claims. Rather, they encompass the question of defendants' subvention obligations *in general* under chapter 2/78. We therefore conclude that defendants may contend in this lawsuit that chapter 2/78 is not a reimbursable state mandate. [10] We turn to the merits of that issue. ***66**

IV. "New Program" or "Increased Service"?

([9a]) As before, defendants urge that by extending unemployment insurance coverage to local government employees, the Legislature did not mandate a "new program" or an "increased" or "higher level of service" on local governments. Thus, they assert, the local costs of providing such coverage are not subject to subvention under article XIII B, section 6, or parallel statutes. (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§

17514, 17561, subd. (a).) The trial court granted summary judgment for defendants on this basis. Contrary to the conclusions reached by the Court of Appeal, the trial court's ruling was correct.

Our analysis is controlled by our decision in *County of Los Angeles*. There we determined that a general increase in workers' compensation benefits did not, when applied to local governments, constitute a reimbursable state mandate under article XIII B.

In so holding, we focused on the particular language of article XIII B, section 6, which requires state subvention of a local government's costs of any "new program" or "increased level of service" imposed upon it by the state. We dismissed the notion that, by employing the quoted phrases, the voters intended *all* local costs resulting from compliance with state law to be subject to mandatory reimbursement. Rather, we explained, "[t]he concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. ..." (43 Cal.3d at p. 56.)

Under these circumstances, we reasoned, the electorate must have intended the undefined terms "new program" and "increased level of service" to carry their "commonly understood meanings ... - programs that carry out the governmental function of providing *services to the public*, or laws which, to implement a state policy, impose *unique requirements* on local governments and do not apply generally to all residents and entities in the state." (43 Cal.3d at p. 56, italics added.)

Local governments' costs of complying with a general statewide increase in the level of workers' compensation benefits do not qualify under these standards, we concluded. As we noted, "... [w]orkers' compensation is not a program administered by local agencies to provide service to the public. ([10]) **(See fn. 11.)** Although local agencies must provide benefits to ***67** their employees ..., they are indistinguishable in this respect from private employers. ..." (43 Cal.3d at p. 58.) [11]

([9b]) Similar considerations apply here. By requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased "service to the public" at the local level. Nor has it imposed a state policy "unique[ly]" on local governments. Most private employers in the state already were required to provide unemployment protection to their employees. Extension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies "indistinguishable in this respect from private employers."

Plaintiffs nonetheless suggest there are several bases for reaching a different result here than in *County of Los Angeles*. None of the asserted distinctions has merit.

Plaintiffs first note the proponents' declaration in the voters' pamphlet that the purpose of article XIII B, section 6, was to prevent the state from "forcing" unfunded programs on local agencies. Plaintiffs invoke this pamphlet language for the proposition that any new cost "forced" on local governments by state law is subject to subvention.

The claim is directly contrary to our holding in *County of Los Angeles*. As we explained, "[i]n ... context, the [pamphlet] phrase 'to force *programs* on local governments' confirms that the intent underlying section 6 [of article XIII B] was to require reimbursement to local agencies for the costs involved in carrying out *functions peculiar to government*, not for expenses incurred by local agencies as an *incidental impact* of laws that apply generally to all state residents and entities. ... [¶] The language of section 6 is far too vague to support an inference that ... each time the Legislature ***68** passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. ..." (43 Cal.3d at pp. 56-57, italics added.) [12]

Plaintiffs next urge the Court of Appeal's premise - that chapter 2/78 did impose a "unique" requirement on local agencies within the meaning of *County of Los Angeles*, since it applied only to them, and compelled costs to which they were not previously subject. Plaintiffs cite our recent decision in *Lucia Mar Unified School Dist.* v. *Honig* (1988) 44 Cal.3d 830 [244 Cal.Rptr. 677, 750 P.2d 318]. There we held, inter alia, that by requiring each local school district to contribute part of the expense of educating its handicapped students in state-run schools - a cost

previously absorbed entirely by the state - the Legislature created a "*new* program" subject to subvention under article XIII B, section 6. As we observed, "although the schools for the handicapped have been operated by the state for many years, the program was *new insofar as [the local districts] are concerned* ...." (P. 835, italics added.)

Lucia Mar is inapposite here. The education of handicapped students was clearly a traditional governmental "service to the public," and it qualified as a "program" on that basis. This function had long been performed by the state, and the only issue was whether the belated shifting of the program's costs to local governments made it "new" for subvention purposes. A negative answer to that question would have undermined a central purpose of article XIII B, section 6 - to prevent the state's transfer of the *cost of government* from *itself* to the local level.

Here, the issue is whether costs *unrelated* to the provision of public services are *nonetheless* reimbursable costs of government, because they are imposed on local governments "unique[ly]," and not merely as an incident of compliance with general laws. State and local governments, and non-profit corporations, had previously enjoyed a special *exemption* from requirements imposed on most other employers in the state and nation. Chapter 2/78 merely eliminated the exemption and made these previously exempted entities subject to the general rule. By doing so, it may have imposed a requirement "new" to local agencies, but that requirement was not "unique." ***69**

The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision.

Next, plaintiffs complain that the new costs imposed on local governments by chapter 2/78 are too great to be deemed "incidental" within the meaning of *County of Los Angeles*. However, our decision did not use the word "incidental" to mean merely "insignificant in amount." Rather, we declared that the state need not reimburse local governments for expenses *incidentally imposed* upon them by laws of general application. In *County of Los Angeles*, we assumed that the expenses imposed *in common* on the private and public sectors by such a general law - as by the across-the-board increase in workers' compensation benefits there at issue - might be substantial. Notwithstanding this possibility, we found the voters did not intend to require a state subsidy of the public sector in such cases. (43 Cal.3d at pp. 56-58.)

Finally, plaintiffs and their amici curiae urge us to overrule *County of Los Angeles*. They insist that our "program" and "unique requirement" limitations conflict with the language and purpose of article XIII B. First, they note that *nonreimbursable* state-mandated costs are expressly listed in subdivisions (a) through (c) of article XIII B, section 6.[13] Under the maxim *inclusio unius est exclusio alterius*, they reason, further exceptions may not be implied. Second, they assert, our limiting construction allows the state to "force" many costly but unfunded requirements on local governments, which the latter must absorb without relief from their own article XIII B spending limits. This, they aver, cannot have been the voters' intent.

These arguments misapprehend both the language of article XIII B, section 6, and our *County of Los Angeles* holding. Our reasoning in that case is not inconsistent with subdivisions (a) through (c) of section 6. Those paragraphs simply exclude certain state-imposed costs *even if they would otherwise be reimbursable under the "new program" or "increased service"* ***70** *standards*. Subdivisions (a) through (c) do not purport to define what constitutes a "new program" or "increased level of service."

Moreover, the "program" and "service" standards developed in *County of Los Angeles* create no undue risk that the state will impose expensive unfunded obligations against local agencies' article XIII B spending limits. On the contrary, our standards require reimbursement whenever the state freely chooses to impose on local agencies *any* peculiarly "governmental" cost which they were not previously required to absorb.

On the other hand, as we explained in *County of Los Angeles*, extension of the subvention requirements to costs "incidentally" imposed on local governments would require the Legislature to assess the fiscal effect on local agencies of each law of general application. Moreover, it would subject much general legislation to

the supermajority vote required to pass a companion local-government revenue bill. Each such necessary appropriation would, in turn, cut into the *state's* article XIII B spending limit. (§ 8, subd. (a).) We concluded that nothing in the language, history, or apparent purpose of article XIII B suggested such far-reaching limitations on legitimate state power. (43 Cal.3d at pp. 56-58.)

We remain persuaded by this reasoning. [14] We decline to overrule *County of Los Angeles*. Under the teaching of that case, we hold that chapter 2/78 imposes no local costs which must be reimbursed pursuant to article XIII B, section 6, and parallel statutes.

V. "Federal" Mandate?

([11a]) This case proceeded through the Court of Appeal solely on the issue whether chapter 2/78 constitutes a reimbursable "state mandate," as defined in *County of Los Angeles*. After we granted review, and in the public interest, we also decided to reexamine a related holding contained in *Sacramento I* - that chapter 2/78 does not qualify as a "federal" mandate.

Proper application of the "federal mandate" concept has important implications beyond subvention. A "cost mandated by the federal government" is exempt from a local government's statutory taxation limit. (Rev. & Tax. Code, § 2271.) Moreover, an appropriation required to comply with a ***71** federal mandate is excluded from the constitutional spending limit of any affected entity, state or local (Cal. Const., art. XIII B, § 9 (b)). Accordingly, we requested supplemental briefs on this question. [15]

After due consideration, we reject *Sacramento I's* premise. We conclude that chapter 2/78 does impose "costs mandated by the federal government," as described in article XIII B and parallel statutes. [16]

Article XIII B, section 9(b), defines federally mandated appropriations as those "required for purposes of complying with mandates of ... the federal government which, *without discretion*, require an expenditure for additional services or which *unavoidably make the providing of existing services more costly*." (Italics added.)

As in *Sacramento I*, plaintiffs argue that the words "without discretion" and "unavoidably" require clear *legal* compulsion not present in Public Law 94-566. Defendants respond, as before, that the consequences of California's failure to comply with the federal "carrot and stick" scheme were so substantial that the state had no realistic "discretion" to refuse. [17] In *Sacramento I*, the Court of Appeal adopted plaintiffs' narrow view. On reflection, we disagree.

Though section 9(b) seems plain on its face, we find a latent ambiguity in context. At the time article XIII B was adopted, United States Supreme Court decisions construing the Tenth Amendment *severely limited* federal power to dictate policy or programs to the sovereign states or their subdivisions. [18] Indeed, by its early ruling that federal unemployment insurance ***72** laws did not violate state sovereignty insofar as they merely employed a "carrot and stick" to induce state compliance (*Steward Machine Co.* v. *Davis, supra*, 301 U.S. 548, 585-593 [81 L.Ed. 1279, 1290-1294]), the high court helped set the stage for two generations of pervasive federal regulation by this indirect means. [19]

Just three years before article XIII B was adopted, the court struck down, on Tenth Amendment grounds, Congress's effort to extend the minimum-wage and maximum-hour requirements of the Fair Labor Standards Act directly to local government employees. (*National League of Cities v. Usery* (1976) 426 U.S. 833 [49 L.Ed.2d 245, 96 S.Ct. 2465].) Overruling earlier authority (see *Maryland* v. *Wirtz* (1968) 392 U.S. 183 [20 L.Ed.2d 1020, 88 S.Ct. 2017]), the court held in *Usery, supra*, that constitutional principles of federalism prohibit Congress from using its otherwise "plenary" commerce power against the "States as States," so as to interfere with the essential "attributes of [state government] sovereignty." (426 U.S. at pp. 840-855 [49 L.Ed.2d at pp. 250-260].) Accordingly, said the court, Congress could not "force directly upon the States its choices as to how essential decisions regarding the conduct of integral governmental functions are to be made. ..." (*Id.*, at p. 855 [49 L.Ed.2d at p. 259].)

Usery dealt with federal efforts to regulate sovereign units of government as employers. However, the court's rationale obviously applied with equal or greater force to direct federal regulation of state and local governments *as governments*. Under *Usery's* reasoning, it seems manifest that Congress's direct power to require or prohibit substantive governmental policies or programs

by state or local agencies was greatly curtailed. Such power would interfere impermissibly with "integral governmental functions" and essential "attributes of [state] sovereignty. [20] ***73**

After article XIII B's adoption, both the result and the reasoning of *Usery* were overruled in *Garcia v. San Antonio Metro. Transit Auth.* (1985) 469 U.S. 528 [83 L.Ed.2d 1016, 105 S.Ct. 1005]. In *Garcia*, a five-justice majority concluded that the political structure of the federal system, rather than rigid categories of inviolable state "sovereignty," constitutes state and local governments' primary protection against Congress's overreaching efforts to regulate them. (Pp. 547-555 [83 L.Ed.2d at pp. 1031-1037].)

However, this later development does not alter two crucial facts extant when article XIII B was enacted. First, the power of the federal government to impose its direct regulatory will on state and local agencies was *then* sharply in doubt. Second, in conformity with this principle, the vast bulk of cost-producing federal influence on government at the state and local levels was by inducement or incentive rather than direct compulsion. [21] That remains so to this day.

Thus, if article XIII B's reference to "federal mandates" were limited to strict legal compulsion by the federal government, it would have been largely superfluous. [22] ([12]) It is well settled that "constitutional ... enactments must receive a liberal, practical common-sense construction which will meet changed conditions and the growing needs of the people. [Citations.] ...." (*Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245 [149 Cal.Rptr. 239, 583 P.2d 1281].) While "[a] constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words[,] [citation] [, t]he literal language of enactments may be disregarded to avoid absurd results and to fulfill the apparent intent of the framers. [Citations.]" (*Ibid.*)

([11b]) As the drafters and adopters of article XIII B must have understood, certain regulatory standards imposed by the federal government ***74** under "cooperative federalism" schemes are coercive on the states and localities in every practical sense. The instant facts amply illustrate the point. Joint federal-state operation of a system of unemployment compensation has been a fundamental aspect of our political fabric since the Great Depression. California had afforded federally "certified" unemployment insurance protection to its workers for over 40 years by the time Public Law 94-566, chapter 2/78, and article XIII B were adopted. Every other state also operated such a system. If California failed to conform its plan to new federal requirements as they arose, its businesses faced a new and serious penalty - full, double unemployment taxation by both state and federal governments. Besides constituting an intolerable expense against the state's economy on its face, this double taxation would place California employers at a serious competitive disadvantage against their counterparts in states which remained in federal compliance.

Plaintiffs and their amici curiae suggest California could have chosen to terminate its own unemployment insurance system, thus leaving the state's employers faced only with the federal tax. However, we cannot imagine the drafters and adopters of article XIII B intended to force the state to such draconian ends.

Here, the state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses. The alternatives were so far beyond the realm of practical reality that they left the state "without discretion" to depart from federal standards. We therefore conclude that the state acted in response to a federal "mandate" for purposes of article XIII B. [23] ***75**

Unlike the *Sacramento I* court, we deem significant the Legislature's persistent agreement with our construction. In 1980, after the adoption of article XIII B, it amended the statutory definition of "costs mandated by the federal government" to provide that these include "costs resulting from enactment of a state law or regulation where failure to enact such law or regulation to meet specific federal program or service requirements would result in *substantial monetary penalties* or *loss of funds* to *public or private persons* in the state. ..." (Rev. & Tax. Code, § 2206, italics added; Stats. 1980, ch. 1256, § 3, p. 4247.)

In *Sacramento I*, the Court of Appeal declined to apply this statutory amendment "retroactively" to article XIII B. (156 Cal.App.3d at pp. 197-198.) The Legislature immediately responded. In 1984 statutes enacted for the express purpose of "implement[ing]" article XIII B (see Gov. Code, § 17500), the Legislature reiterated its 1980

definition. (*Id.*, § 17513; Stats. 1984, ch. 1459, § 1, p. 5114.)[24]

Plaintiffs contend that these statutory pronouncements deserve little interpretive weight since, among other things, they are "internally inconsistent." Plaintiffs stress the proviso in Revenue and Taxation Code, section 2206, and in Government Code, section 17513, that the phrase "' [c]osts mandated by the federal government' does *not* include costs which are specifically reimbursed or funded by the federal or state government or programs or services which may be implemented at the *option* of the state, local agency, or school district." (Italics added.)

We see no fatal inconsistencies. The first clause of the proviso merely confirms, as article XIII B itself specifies, that program funds voluntarily provided by another unit of government may not be excluded from the ***76** spending limits of recipient local agencies. (Compare art. XIII B, §§ 8, subd. (b), 9(b).) The second clause isolates a concern which we share - that state or local governments might otherwise claim "federally mandated costs " even where participation in a federal program, or compliance with federal " standards," is a matter of true choice. (Cf., e.g., *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at pp. 542-544.)[25]

Given the variety of cooperative federal-state-local programs, we here attempt no final test for "mandatory" versus "optional" compliance with federal law. ([13]) A determination in each case must depend on such factors as the nature and purpose of the federal program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal. Always, the courts and the Commission must respect the governing principle of article XIII B, section 9(b): neither state nor local agencies may escape their spending limits when their participation in federal programs is truly voluntary.

([11c]) For reasons expressed above, we are satisfied under these standards that chapter 2/78 did implement a federal "mandate" within the meaning of article XIII B and prior statutes restricting local taxation. Hence, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by chapter 2/78 may tax and spend as necessary to meet the expenses required to comply with that legislation. To the extent *Sacramento I* is inconsistent with our analysis, that decision is disapproved.

VI. Conclusion.

We have concluded that chapter 2/78 is a "federal mandate" which exempts affected state and local agencies from pertinent limits on their power to tax, appropriate, and spend. However, local governments' expenses ***77** of complying with chapter 2/78 are not subject to compulsory state subvention, because chapter 2/78 imposed no new or increased "program or service," and no "unique" requirement, on local agencies. The contrary judgment of the Court of Appeal is reversed.

Lucas, C. J., Mosk, J., Broussard, J., Panelli, J., and Kennard, J., concurred.

KAUFMAN, J.,

Concurring and Dissenting.

I concur in the judgment. Given this court's decision in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202], I am compelled to agree that the obligation imposed on local governments by the 1978 state unemployment insurance legislation is not a "new program or higher level of service" within the meaning of article XIII B, section 6, of the California Constitution, and that for this reason the state is not constitutionally obligated to provide a subvention of funds to reimburse the unemployment insurance costs of local governments. I respectfully dissent, however, from the additional conclusion, stated in part V of the majority opinion, that these unemployment insurance costs are "mandates of ... the federal government" and therefore exempt from the state and local government appropriation limits of article XIII B and from property taxation limits imposed by statute. In reaching this additional conclusion the majority decides an issue not raised by the parties and completely outside the scope of this action. As so often happens when a court reaches beyond the confines of the case before it to render a gratuitous advisory opinion, the majority decides the issue incorrectly.

All too frequently in recent years (see, e.g., *S. G. Borello & Sons, Inc. v. Department of Industrial Relations* (1989) 48 Cal.3d 341, 345, fn. 1 [256 Cal.Rptr. 543, 769 P.2d 399]) this court, in its misguided zeal to provide enlightenment, has reached out to decide an issue not tendered by the parties. The majority's failure to exercise proper judicial restraint in the instant case is another example of this trend and one I find particularly disturbing since it violates a fundamental and venerable tenet of judicial practice - i.e., "A court will not decide a constitutional question unless such construction is absolutely necessary." (*Estate of Johnson* (1903) 139 Cal. 532, 534 [73 P. 424]; accord, *People* v. *Williams* (1976) 16 Cal.3d 663, 667 [128 Cal.Rptr. 888, 547 P.2d 1000]; *Palermo v. Stockton Theatres, Inc.* (1948) 32 Cal.2d 53, 65 [195 P.2d 1].) The federal mandate issue which the majority here decides, because it turns on the proper construction of article XIII B, section 9, of our state Constitution, is a constitutional issue. Using this case to resolve that issue is, to my mind, indefensible.

To see just how far the majority has wandered from the issues essential to the proper resolution of this case, one need only point out that this action ***78** was not brought to settle a dispute about taxation or appropriation limits, nor has this court been informed that any such dispute exists. Rather, this action was brought to enforce the holding in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258] (*Sacramento I*), that the state is constitutionally obligated to reimburse the unemployment insurance costs of local governments. The governmental entities litigating this proceeding have not sought a judicial determination of the 1978 unemployment insurance legislation's effect on their statutory or constitutional taxing or spending limits, nor have they raised any issue regarding whether unemployment insurance costs are federally mandated for any purpose. The federal mandate issue was first injected into the case by this court when we requested additional briefing on the questions whether the unemployment insurance costs of local governments are federally mandated under article XIII B, section 9, of the state Constitution and, if so, whether this conclusion necessarily exempts the state from any obligation it might otherwise have to reimburse local governments for these costs.

The majority's federal mandate discussion does not even provide an alternative ground for the holding denying reimbursement of local governments' unemployment insurance costs, for the majority purports to decide whether unemployment insurance costs are federally mandated without deciding whether resolution of this issue has any bearing on entitlement to reimbursement (see maj. opn., *ante*, p. 71, fn. 16). The majority's only justification for deciding whether unemployment insurance costs are federally mandated is that the issue has " important implications" inasmuch as federally mandated costs are "exempt from a local government's statutory taxation limit (Rev. & Tax. Code, § 2271) " and "from the constitutional spending limit of any affected entity, state or local (Cal. Const., art. XIII B, § 9(b))." (Maj. opn., *ante*, pp. 70-71.) But the present case is an inappropriate vehicle for deciding these weighty issues since neither the state nor the local entities have any reason to contest the other's exemptions from spending or taxation limits. In other words, the parties now before us are not adverse on these issues and so have not defined and argued opposing points of view with the vigor and thoroughness essential to proper judicial resolution of complex legal questions, particularly those of constitutional magnitude. Those who might have argued in favor of including unemployment insurance costs in the taxing and spending limits - for example, the proponents of the initiative measure by which article XIII B was enacted - are not represented in this proceeding.

Were the issue properly presented in this case, I would conclude that the unemployment insurance costs are not federally mandated. The text of a constitution "should be construed in accordance with the natural and ordinary meaning of its words." (***79** *Amador Valley Joint Union High Sch. Dist.* v. *State Bd. of Equalization* (1978) 22 Cal.3d 208, 245 [149 Cal.Rptr. 239, 583 P.2d 1281].) The language at issue here excludes from the definition of " appropriations subject to limitation" those appropriations " required for purposes of complying with *mandates* of the courts or the federal government which, *without discretion, require* an expenditure for additional services or which *unavoidably* make the providing of existing services more costly. " (Cal. Const., art. XIII B, § 9, subd. (b), italics added.)

The meaning of this language is clear; to look beyond the text for some other meaning is both unnecessary and improper under accepted rules of constitutional interpretation. (See *State Board of Education* v. *Levit* (1959) 52 Cal.2d 441, 462 [343 P.2d 8]; *People v. Knowles*

(1950) 35 Cal.2d 175, 182-183 [217 P.2d 1].) A "mandate" is "an order, command [or] charge." (*Xth Olympiad Com. v. American Olym. Assn.* (1935) 2 Cal.2d 600, 604 [42 P.2d 1023]; see also, *Morris* v. *County of Marin* (1977) 18 Cal.3d 901, 908 [136 Cal.Rptr. 251, 559 P.2d 606] ["mandatory duty" is "an obligatory duty which a governmental entity is required to perform"]; *Bridgman v. American Book Co.* (1958) 12 Misc.2d 63, 66 [173 N.Y.S.2d 502, 506] ["mandate" is "a command, order or direction ... which a person is bound to obey"].) The mandates to which the constitutional provision at issue refers are those "of the courts or the federal government." The coercive force of court mandates is, of course, the force of law. That "mandates of ... the federal government" are similarly limited to those obligations imposed by force of federal law is shown not only by the term "mandate" itself but also by the terms "without discretion " and " unavoidably," which plainly exclude any form of inducement using political or economic pressure rather than legal compulsion.

Laws limiting governmental appropriations and indebtedness have traditionally exempted two categories of expenditures: those required to meet emergencies and those required to satisfy duties or mandates imposed by law. (See, e.g., *County of Los Angeles v. Byram* (1951) 36 Cal.2d 694, 698-700 [227 P.2d 4]; *County of Los Angeles* v. *Payne* (1937) 8 Cal.2d 563, 569-575 [66 P.2d 658]; *State* v. *City Council of City of Helena* (1939) 108 Mont. 347 [90 P.2d 514, 516]; *Raynor v. King County* (1940) 2 Wn.2d 199 [97 P.2d 696, 707].) The latter category has been interpreted as including only those obligations compelled by force of law, as opposed to economic or political necessity or expedience. (See *County of Los Angeles v. Byram, supra*, at pp. 698-700; *County of Los Angeles* v. *Payne, supra*, at pp. 573-574.) Article XIII B of the California Constitution follows the pattern of other similar laws; it provides exemptions for emergency appropriations in section 3, subdivision (c), and for legal duties or "mandates" in section 9, subdivision (b). I see no basis for concluding that the term "mandate," which in the context of government debt and appropriation limitations has traditionally ***80** meant a duty imposed by force of law, has suddenly acquired a novel and more expansive meaning in section 9. On the contrary, the drafters of section 9 appear to have taken pains to avoid any such interpretation.

As stated in *Sacramento I*, "The concept of federal mandates ... is defined in section 9 of article XIII B. Subdivision (b) of that section excludes from a governmental entity's appropriation limit '[a]ppropriations required for purposes of complying with mandates of ... the federal government which, *without discretion, require* an expenditure' by the governmental entity. (Italics added.) As contemplated by article XIII B, section 9, a federal mandate is one pursuant to which the federal government imposes a cost upon a governmental entity, and the entity has *no discretion* to refuse the cost. Chapter 2 [the 1978 unemployment insurance legislation] was not a federal mandate within this constitutional definition, as the State had the discretion to participate or not in the federal unemployment insurance system. " (*Sacramento I, supra*, 156 Cal.App.3d 182, 197, italics in original.) Giving the constitutional language its usual and ordinary meaning, I agree with the Court of Appeal that federal law "mandates" an expenditure only if the expenditure is legally compelled, and not if the federal law merely provides economic or political inducements, no matter how powerful or coercive. Since it is undisputed that the state was under no legal compulsion to enact the 1978 unemployment insurance legislation, the burdens of that legislation are not " mandates of ... the federal government."

In support of its contrary conclusion, the majority reasons as follows: (1) when article XIII B of the California Constitution was drafted and enacted, the Tenth Amendment to the United States Constitution had been construed to prohibit Congress from imposing costs on state and local governments; (2) as a result, virtually all federal laws imposing costs on state and local governments did so through "carrot and stick" incentive programs rather than by direct legal compulsion; and (3) the exemption for "mandates of ... the federal government" must be construed to encompass at least some of these incentive programs because otherwise it would be almost entirely superfluous. I find each of these points highly questionable, if not demonstratively unsound.

First, the Tenth Amendment has never been interpreted as entirely prohibiting the federal government from imposing costs on state and local government. Rather, *National League of Cities v. Usery* (1976) 426 U.S. 833 [49 L.Ed.2d 245, 96 S.Ct. 2465] defined an exception to the broad sweep of Congress's commerce clause authority. Under

this exception, "traditional governmental functions" of state and local governments were protected from direct and intrusive federal regulation. (426 U.S. at p. 852 [49 L.Ed.2d at pp. 257-258].) As explained in *Garcia v. San Antonio Metro. Transit* ***81** *Auth.* (1985) 469 U.S. 528, 538-547 [83 L.Ed.2d 1016, 1025-1032, 105 S.Ct. 1005], the result was an inconsistent patchwork of decisions upholding or striking laws depending on whether the regulated activities were perceived by the court as being traditionally associated with state or local government or constituting " attributes of state sovereignty." Thus, a significant number of laws imposing costs on state and local governments survived Tenth Amendment scrutiny even before the decision in *Garcia v. San Antonio Metro. Transit Auth., supra*. (See, e.g., *EEOC v. Wyoming* (1983) 460 U.S. 226 [75 L.Ed.2d 18, 103 S.Ct. 1054] [holding state and local government employee retirement policies subject to federal age discrimination regulations]; see generally, Skover, *"Phoenix Rising" and Federalism Analysis* (1986) 13 Hastings Const.L.Q. 271, 286-288.) More importantly, however, I see no reason to assume that the drafters of article XIII B intended that the federal mandate exemption would have broad application, encompassing a large number of federal programs. Rather, construing the exemption narrowly seems entirely consistent with the probable intent of those who drafted the provision.

The test proposed by the majority for identifying those incentive programs which qualify as "mandates of ... the federal government" will require an extensive factual inquiry into the practical consequences of noncompliance with the federal law. It will be burdensome to apply and its outcome will be difficult to predict. Besides being wholly unnecessary to resolution of this case, and violating the probable intent of the voters who enacted article XIII B of the California Constitution, [1] the majority's discussion of the federal mandate issue is certain to generate more difficulties than it resolves. ***82**

Footnotes

1 Article XIII B is to be distinguished from article XIII A, which was adopted as Proposition 13 at the June 1978 election. Article XIII A imposes a direct constitutional limit on state and local power to *adopt and levy taxes*. Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend for public purposes. Moreover, to the extent "federally mandated" costs are exempt from prior *statutory* limits on local *taxation* (see *ante*, at pp. 57-58), article XIII A eliminates the exemption insofar as it would allow levies in excess of the constitutional ceiling. All further section references are to article XIII B of the California Constitution, unless otherwise indicated.

2 The claims for reimbursement were originally premised entirely on Revenue and Taxation Code section 2201 et seq. While the City's and the County's mandamus petitions were pending in superior court, article XIII B was adopted. The City and the County amended their petitions to include article XIII B as an additional basis for relief, and the case proceeded accordingly.

3 The trial court also sustained the Legislature's demurrer without leave to amend and dismissed the Legislature as a party defendant. The Court of Appeal affirmed the dismissal in a separate proceeding. (See *City of Sacramento v. California State Legislature* (1986) 187 Cal.App.3d 393 [231 Cal.Rptr. 686].)

4 Amicus curiae briefs were filed on behalf of plaintiffs by (1) the League of California Cities, the Association of California Water Agencies, and the Fire District Association of California, and (2) the County of Los Angeles and the County Supervisors Association of California.

5 In 1986, the Legislature repealed sections 2250-2255 of the Revenue and Taxation Code. (Stats. 1986, ch. 879, §§ 37-48, p. 3047.) The Board's functions have been transferred to the Commission on State Mandates (Commission), but the procedures for administrative and judicial determination of subvention disputes remain functionally similar. (Gov. Code, §§ 17500 et seq., 17600 et seq.)

6 Indeed, when the City filed protective claims for "refund" with EDD in the wake of *Sacramento I*, that agency consistently disclaimed authority to decide the subvention issue presented and "suggest[ed]" that the City pursue its remedies before the Commission.

7 As we note above, courts are powerless to compel appropriations *per se*. However, that fact does not render a prayer for reimbursement of *past* costs wholly meaningless. California courts have previously recognized judicial power to fashion other appropriate reimbursement remedies. (See, e.g., *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at pp. 550-552; also cf. *Mandel, supra*, 29 Cal.3d at pp. 535-537, 539-552.) Such power is especially important where subvention is constitutionally compelled.

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8 For these reasons, this case is distinguishable from *Slater v. Blackwood* (1975) 15 Cal.3d 791 [126 Cal.Rptr. 225, 543 P.2d 593], cited by the Court of Appeal. *Slater*, a suit between private parties, held only that the "injustice" exception to the rule of collateral estoppel cannot be based *solely* on an intervening change in the law. (P. 796.) Here, as we note, overriding public-interest issues are involved.

9 By the same token, the state has not ignored available remedies or otherwise "waived" its right to argue the issues presented by this appeal. The state immediately raised the applicability of *County of Los Angeles* to this suit once our decision therein became final.

Plaintiffs claim the instant trial court had no power to grant summary judgment for defendants on authority of *County of Los Angeles*. Plaintiffs assert that because defendants failed to seek timely mandamus review of the prior, contrary order granting summary adjudication of issues in *plaintiffs'* favor, the issues decided by the earlier order must be "deemed established." (See Code Civ. Proc., § 437c, subd. (f).) We disagree. Failure to challenge a summary adjudication order by the *discretionary* avenue of writ review cannot foreclose a party from asserting *subsequent* changes in law which render such a pretrial order incorrect.

10 Plaintiffs imply that because the original claims by the City and the County were filed decided as statutory "test claims" (Rev. & Tax. Code, former §§ 2218, 2253.2; see now Gov. Code, §§ 17555, 17557), the "cause of action" adjudicated therein encompasses *all* claims by *all* local agencies for *all* years. However, the obvious purpose of the statutory "test claim" procedure is to resolve the *legal issue whether particular state legislation creates a reimbursable mandate*, not to adjudicate every individual claim for reimbursement which may thereafter accrue. The "test claim" result has *precedential* effect for all subsequent claims, but res judicata effect only for the individual claims which were actually adjudicated.

11 While our discussion centered on the meaning of section 6 of article XIII B, it relied heavily on the legislative history of parallel provisions of the 1972 and 1973 property tax relief statutes. When article XIII B was adopted in November 1979, the Revenue and Taxation Code already required state subvention of local "[c]osts mandated by the state," defined as "any increased costs which a local agency is required to incur as a result of ... [¶] [a]ny law enacted after January 1, 1973, which mandates a *new program* or an *increased level of service* of an existing program." (Rev. & Tax. Code, former §§ 2207 [italics added], 2231, subd. (a).) However, a further statutory definition of "increased level of service" to include any state mandate "which makes necessary expanded or additional costs to a county, city and county, city, or special district" had been repealed in 1975. (*County of Los Angeles*, 43 Cal.3d at p. 55; see Rev. & Tax. Code, former § 2231, subd. (e), repealed by Stats. 1975, ch. 486, § 6, p. 999.) We found the repealer significant to the limited meaning of the statutory term "increased level of service" as later incorporated in article XIII B. (43 Cal.3d at pp. 55-56.) Our implicit conclusion, which we now make explicit, was that the statutory and constitutional concepts of reimbursable state-mandated costs are identical.

12 Indeed, our reasoning here was expressly foreshadowed in *County of Los Angeles*. There we observed: "The Court of Appeal reached a different conclusion in [*Sacramento I*], with respect to a newly enacted law requiring that all public employees be covered by unemployment insurance. Approaching the question as ... whether the expense was a 'state mandated cost,' rather than as whether the provision of an employee benefit was a 'program or service' within the meaning of the Constitution, the court concluded that reimbursement was required. To the extent that this decision is inconsistent with our conclusion here, it is disapproved." (43 Cal.3d at p. 58, fn. 10.)

13 Article XIII B, section 6, provides that the state shall provide a subvention of funds to reimburse a local agency for costs incurred by the agency "[w]henever the [state] mandates [on the agency] a new program or higher level of service ..., except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975."

14 Nor do we agree that subvention depends on whether the "benefit" of a state-imposed local requirement falls principally at the state or local level. Attempts to apply such a "benefit" test to the myriad of individual cases could easily produce debates bordering on the metaphysical. Nothing in the language or history of article XIII B, or prior subvention statutes, suggests an intent to force such debates upon the Legislature each time it considers legislation affecting local governments.

15 For the reasons expressed in part III, *ante*, our consideration of this issue is not foreclosed by principles of collateral estoppel.

16 In *Sacramento I*, both the parties and the Court of Appeal assumed that if a cost was "federally mandated," it was therefore *not* a "state mandated" cost subject to subvention. In other words, it was assumed, an expense could not

be both "state mandated" and "federally mandated," even if imposed by the state under federal compulsion. It was in this context that *Sacramento I* addressed the "federal mandate" issue. (See also *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at p. 543.) We here express no view on the question whether "federal" and "state" mandates are mutually exclusive for purposes of state subvention, but leave that issue for another day. We decide only that, insofar as an expense is "federally mandated," as described in the state Constitution and statutes, it is exempt from the pertinent taxation and spending limits.

17 Ironically, the local agencies here argue *against* a "federal mandate," with the state in opposition to that view. An anti-"federal mandate" position seems directly contrary to the local agencies' interests, since its acceptance would mean the agencies are not eligible for exemptions from their pertinent taxing and spending limits. However, all parties appear still bound by the premise of *Sacramento I* that if a cost is "federally mandated," it is ineligible for state subvention. As noted above (see fn. 16, *ante*), we do not decide that issue here.

18 The Tenth Amendment to the United States Constitution provides: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

19 The traditional categorical-aid provisions of the Social Security Act (e.g., 42 U.S.C. §§ 301 et seq. [old-age assistance], 601 et seq. [aid to needy families with dependent children], 1201 et seq. [aid to the blind], 1351 et seq. [aid to the permanently and totally disabled]), and statutes concerned with occupational safety and health (e.g., 29 U.S.C. § 651 et seq.), highways and mass transit (e.g., 23 U.S.C. § 101 et seq.), education (e.g., 20 U.S.C. § 241a et seq.), and air and water pollution (e.g., 33 U.S.C. §§ 1251 et seq., 1311 et seq.; 42 U.S.C. § 7401 et seq.) are but a few examples of federal laws imposing greater or lesser degrees of inducement to state and local compliance with federal policies and programs.

20 *Hodel v. Virginia Surface Mining & Recl. Assn.* (1981) 452 U.S. 264 [69 L.Ed.2d 1, 101 S.Ct. 2352] later implicitly confirmed this premise. There, Virginia mine operators challenged a federal surface-mining regulatory scheme on grounds it displaced state authority and sovereignty. The federal law imposed minimum federal standards, to be enforced by federal or state officials at the state's choice, and allowed states to take over regulation by imposing equal or higher standards of their own. (30 U.S.C. §§ 1201 et seq., 1251-1254.) The court upheld the program, noting it regulated private persons, not the "States as States. " Moreover, said the court, since states were not ordered to adopt their own surface-mining standards, "there can be no suggestion that the Act commandeers the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program. [Citations.] .... " (452 U.S. at pp. 286-288 [69 L.Ed.2d at pp. 22-24].)

21 The United States Constitution includes specific limitations on the subject-matter jurisdiction of state and local governments (art. I, § 10), imposes certain direct obligations and restrictions on the "States as States" (e.g., art. I, § 2, cls. 1, 4; art. I, § 3, cls. 1, 2; art II, § 1, cl. 2; art. IV, §§ 1, 2, cls. 1, 2; Amends. XIV, XV), and grants Congress power to prevent denial of certain constitutional rights by the states (Amends. XIII, XIV, XV). Obviously, however, these provisions account for only a minute portion of the costs incurred by state and local governments as a result of federal programs and regulations.

22 For this reason, federal cases cited by plaintiffs and their amici curiae for the proposition that Public Law 94-566 is not "coercive " (e.g., *County of Los Angeles, Cal. v. Marshall* (D.C. Cir. 1980) 631 F.2d 767 [203 App.D.C. 185]; *State, etc.* v. *Marshall* (1st. Cir. 1980) 616 F.2d 240) are inapposite. Those decisions applied *Tenth Amendment* principles to determine whether Public Law 94-566 was constitutionally valid. Had Public Law 94-566 been struck down on this ground, it would *not* have resulted in local costs to which the "federal mandate" provisions of article XIII B might extend. Thus, applying the Tenth Amendment cases to determine whether a cost is "federally mandated " for purposes of article XIII B presents a problem in circular reasoning.

23 The dissent cites two older cases for the premise that in antidebt and antispending measures, the exception recognized for "mandatory" costs and expenditures has traditionally been limited to obligations imposed by law. Neither cited decision is dispositive or persuasive here.

County of Los Angeles v. Byram (1951) 36 Cal.2d 694 [227 P.2d 4], and the cases therein cited, concern the constitutional provision (Cal. Const., former art. XI, § 18, see now art. XVI, § 18 (hereafter section 18)) which prohibits local governments, absent voter approval, from incurring debts or liabilities which exceed in any year the income or revenue provided for such year. Section 18 is *absolute on its face* and, unlike article XIII B, it contains *no express exception* for mandatory expenses. Though sometimes founded on contorted linguistic analyses (see, e.g., *City of Long Beach* v. *Lisenby* (1919) 180 Cal. 52, 56 [179 P. 198]), the *implied* exceptions to section 18, as recognized in *Byram* and other cases, arise from a rule of necessity and despite the absolute constitutional language. Such implied exceptions must, of course, be narrowly confined.

On the other hand, *County of Los Angeles v. Payne* (1937) 8 Cal.2d 563 [66 P.2d 658], also cited by the dissent, construed former Political Code section 3714, which limited a local government's annual expenditures to its previously adopted budget. Section 3714 *did* contain an express exception for "mandatory expenses *required by law*." (Italics added.) *Payne's* adherence to the explicit terms of the statutory exception is hardly remarkable.

In contrast with the measure considered in *Byram*, article XIII B and the Revenue and Taxation Code *do* expressly exempt "federally mandated " expenses from the pertinent taxation and appropriations limits. Unlike the measure construed in *Payne*, neither article XIII B nor the Revenue and Taxation Code expressly limit their exemptions to obligations " required by law." Article XIII B uses the broader terms "unavoidably " and "without discretion," suggesting recognition by the drafters and voters that forces beyond strict legal compulsion may produce expenses that are realistically involuntary. The Revenue and Taxation Code explicitly includes coercive federal "carrot and stick" requirements within the federally "mandated" costs exempt from statutory property tax limits. (Rev. & Tax. Code, § 2206.)

24 Plaintiffs suggest that by reenacting this language in the wake of *Sacramento I*, the Legislature "acquiesced" in the Court of Appeal's narrow definition of "costs mandated by the federal government." We are not persuaded. *Sacramento I* did not *construe* the statutory language; it simply found a postdated statute *irrelevant* to the proper interpretation of article XIII B. By later readopting its expanded definition in statutes designed to "implement" article XIII B, the Legislature expressed its disagreement with *Sacramento I*, not its acquiescence. Contrary to the implications of *Sacramento I*, legislative efforts to resolve ambiguities in constitutional language are entitled to serious judicial consideration. (See authorities cited *ante*.)

25 In the *Carmel Valley* case, the state claimed, among other things, that local costs of purchasing protective clothing and equipment for firefighters, as required by regulations under the California Occupational Safety and Health Act, constituted a nonreimbursable "federal mandate " because the California standards merely "implemented" federal law. However, the evidence was contrary; a letter from the federal Occupational Safety and Health Administration disclaimed federal jurisdiction over California's political subdivisions and stated that state and federal standards were independent. (190 Cal.App.3d at pp. 543-544.) Examination of the pertinent statutory scheme reinforces the view that compliance with federal standards in this area is "optional" with the state. Other than loss of limited federal administrative funds (29 U.S.C. § 672(g)), the only sanction for California's decision not to maintain a federally approved occupational safety and health system is that federal standards, administered by federal personnel, will then prevail within the state. (*Id.*, § 667(b)-(h).)

1 Those voters no doubt will be upset to learn that their tax dollars will be dissipated in litigation to determine such metaphysical questions as whether a decision to participate in a federal program was "truly voluntary."

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KeyCite Yellow Flag - Negative Treatment
Superseded by Constitutional Amendment as Stated in Green Valley Landowners Assn. v. City of Vallejo, Cal.App. 1 Dist., October 16, 2015

152 Cal. 579, 93 P. 490

CITY OF SOUTH PASADENA, Appellant,
v.
PASADENA LAND AND WATER COMPANY, Respondent.

Supreme Court of California.
L. A. No. 1793.
January 2, 1908.

WATER CORPORATION—TRANSFER OF ENTIRE PROPERTY—LEGISLATIVE SANCTION ESSENTIAL.
A *quasi*-public corporation, engaged in supplying water for public use, cannot, without legislative sanction, transfer to another the entire property devoted to such service and the business of carrying it on.

ID.—CONSENT OF STOCKHOLDERS TO TRANSFER OF ENTIRE WATER SYSTEM.
Under section 361a of the Civil Code, as enacted in 1903, a *quasi*-public corporation, such as a water company, with the consent of the stockholders thereof holding of record at least two thirds of its issued capital stock, but not otherwise, may make a transfer of its business, franchises, and property as a whole, including its water-pipes in the streets of a municipality, and the right to use such streets, as a way, which it had under section 19 of Article XI of the constitution.

ID.—TRANSFER OF FRANCHISE—RELEASE OF LIABILITIES.
Section 10 of Article XII of the Constitution, providing that the Legislature shall not pass any laws permitting "the leasing or alienation of any franchise, so as to release the franchise or property held thereunder from the liabilities of the lessor or grantor, lessee or grantee, contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges," does not prohibit such a transfer by a water company, but merely forbids a transfer of a franchise "so as to relieve the franchise or property held thereunder," from liabilities so incurred or contracted. The transferee would take the franchise and property pertaining to it subject to all its burdens, and, so long as it held it, would be obliged to continue the performance of the public service to which it had been dedicated, or to allow others to do so in its behalf.

ID.—PUBLIC USE—DEDICATION OF WATER TO—RIGHT TO CONTINUANCE OF USE—MANDAMUS.
In the case of the establishment of a water system to supply water for public use, all the persons to whose use the water is appropriated or dedicated are vested with a right to have the supply continued by whomsoever may be in control thereof, and may enforce such right by a proceeding in *mandamus* against the person in control of the supply and the works by which it is distributed, regardless of the title, to compel the continuance of the distribution, in the usual and proper manner, to those entitled. This rule is applicable, and the remedy by *mandamus* available, whether the person in control of the supply is a municipal or a private corporation, or an individual.

ID.—POWER OF TRANSFEREE TO ACCEPT.
A transfer of property used in a public service, from one corporation to another, although made by a corporation having power to convey, is invalid unless the transferee has the power to accept the property and continue the use to which it has been devoted. If such power is wanting in the transferee, the transfer is not binding on the grantor or lessor.

ID.—CITY OF PASADENA—RIGHT TO ACQUIRE WATER SYSTEM—SUPPLY OF WATER TO ANOTHER CITY.
The city of Pasadena, under the provisions of its charter, (Stats. 1905, p. 1021), and under the act of 1891 (Stats. 1891, p. 102), has the power to accept the transfer of the property, business, and franchises of a water company, engaged in supplying water to certain parts of the cities of Pasadena and South Pasadena, for the use of the respective inhabitants thereof within said territories, and to the said cities, respectively, for sprinkling of streets, and to undertake and perform the public service imposed on such property in the hands of its transferer.

ID.—SUPPLY TO OUTSIDE LIMITS—INCIDENTAL POWERS.

A grant of power to provide and supply water to a city and its inhabitants, authorizes a city to carry on a system and supply water to persons outside its limits, whenever it becomes necessary or convenient to do so in order to accomplish the main purpose of supplying water to those within.

ID.—JUDICIAL NOTICE OF ARIDITY OF REGION.
In construing what powers are necessary, incidental, or fairly to be implied from the powers expressly given to the city of Pasadena by its charter, respecting the acquisition of a water system, it is proper to consider the conditions surrounding the city at the time, and the court will take judicial notice that the two cities are situated in a comparatively arid region, the available waters of which are already applied to valuable public or private use.

ID.—FIXING WATER RATES BY ONE CITY AS AGAINST ANOTHER.
Under the constitution, a municipal corporation has power to fix the rates to be charged for water supplied to its inhabitants and to control the manner of laying and repairing pipes in its streets for that purpose, as against another city engaged in supplying such waters, as well as when an individual or water corporation does so.

ID.—PERFORMANCE OF GOVERNMENTAL FUNCTIONS.
In the carrying on of the water service to the people of South Pasadena, the city of Pasadena will not be acting in its political, public, or governmental capacity as an agent of the sovereign power, equal in all respects to the city within which it operates. In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi*-public capacity.

ID.—SUPPLYING WATER OUTSIDE OF CITY A MUNICIPAL AFFAIR—CHARTER PROVISIONS CONTROL.
The supplying of water by the city of Pasadena to outside territory, being necessarily a matter incidental to the main purpose of supplying water to its own inhabitants, is a "municipal affair" of the city of Pasadena, within the meaning of that phrase in section 6 of article XI of the constitution, and the charter provisions relating thereto prevail over general laws, if inconsistent therewith.

ID.—SALE OF SURPLUS WATER—WATER ALREADY DEDICATED TO A PARTICULAR USE.
Upon the purchase by the city of Pasadena of the property, business, and franchises of a water company, a portion of whose water was appropriated to the use of a part of the city of South Pasadena and its inhabitants, the duty devolves upon it, as a trustee, of continuing to supply such water to the part of the city of South Pasadena and its inhabitants that previously enjoyed the use. As to such water, it cannot be considered as surplus water subject to sale to others, within the meaning of the Act of March 27, 1897, authorizing a city having in the supply more water than is necessary for its inhabitants, to sell the surplus, but providing that contracts for such sales shall not run for a period longer than one year.

ID.—LAYING MAINS IN STREETS OF ANOTHER CITY.
Section 19 of article XI of the constitution, providing that in any city where there are no municipal waterworks for the supply of its inhabitants, "any individual, or any corporation duly incorporated for such purpose," may lay mains in the streets for supplying such water, should be liberally construed, so as to empower a municipal corporation on whom the duty devolves of supplying water to another municipality, to lay its mains in the streets of the latter.

ID.—INJUNCTION—THREAT TO DISCONTINUE SUPPLY—ADEQUACY OF LEGAL REMEDY BY MANDAMUS.
An injunction will not lie to restrain a municipal corporation from acquiring a water system, a part of which is already appropriated to supplying water to another city, upon a mere allegation that it threatens and intends, when it acquires each system, to cut off the supply from the other city and its inhabitants. Should it attempt such unlawful act, the persons injured would have an adequate legal remedy by mandamus.

APPEAL from a judgment of the Superior Court of Los Angeles County. D. K. Trask, Judge.

The facts are stated in the opinion of the court.

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***582** John E. Carson, and Lynn Helm, for Appellant. Anderson & Anderson, for Respondent.

SHAW, J.

The defendant is a corporation engaged in supplying water to certain parts of the cities of Pasadena and South Pasadena, respectively, for the use of the respective inhabitants thereof within said territories, and to the said cities, respectively, for sprinkling of streets. The territory thus supplied within South Pasadena embraces from one half to two thirds of its area. This suit is to enjoin the defendant from selling and transferring to the city of Pasadena its water, water-rights, water plant or system and all franchises and property of any and every description heretofore used by the defendant in so supplying said water to the plaintiff and its inhabitants, as aforesaid. It appears that the defendant is about to make such transfer, so far as it has the lawful power to do so. A general demurrer to the complaint was sustained and thereupon judgment was given for the defendant, from which the plaintiff appeals. The record further shows that an answer was filed with the demurrer, that plaintiff demurred to the answer and moved to strike out certain parts thereof, and that this demurrer was overruled and the motion denied. As we have concluded that the demurrer to the complaint was properly sustained, the other orders are immaterial to the disposition of the appeal.

It is proper to say here that two other cases, namely: *Graham v. Pasadena Land and Water Company*, L. A. No. 1957, *post*, p. 596, [93 Pac. 498], and *Orcutt v. Pasadena Land and Water Company and the City of Pasadena*, L. A. No. 1958, *post*, p. 599, [93 Pac. 497], the latter begun by residents of South Pasadena, entitled to water from the defendant water company, and the former by a stockholder of ***583** the defendant herein, to obtain similar relief, were submitted with this case and that, as requested by counsel, the briefs in those cases have been considered in this case, so far as applicable.

The appellant presents for our determination four questions:

First—Has the Pasadena Land and Water Company, while it continues to exist as a going corporation and without the assent of the state, power or authority to transfer its entire property, privileges, and franchises and thereby discharge itself of the duty and deprive itself of the ability to continue the public service of supplying water to the plaintiff and its people?

Second—Has the state consented to such transfer?

Third—Has the city of Pasadena, to which the transfer is to be made, power to accept said property, privileges, and franchises and to perform the duties to the plaintiff and its people hitherto imposed upon and performed by the Pasadena Land and Water Company, and which constitute a charge upon the property to be transferred?

Fourth—If such power is possessed by the respective corporations, as aforesaid, can the subsequent performance of such duties by the city of Pasadena be enforced by the city of South Pasadena and its inhabitants entitled to the water, or only by the grantor, the Pasadena Land and Water Company?

The first, second, and fourth of these propositions will be considered together.

1. The respondent is a *quasi*-public corporation, engaged in supplying water for public use. This is admitted, and it is also conceded that corporations of that character cannot, without legislative sanction, transfer to another the entire property devoted to such service and the business of carrying it on. This appears to be settled by the authorities. (*Visalia Gas etc. Co. v. Sims,* 104 Cal. 326, [43 Am. St. Rep. 105, 37 Pac. 1042]; *Thomas v. Railroad Co.,* 101 U.S. 82; *Central T. Co. v. Pullman P. P. Co.,* 139 U.S. 48, [11 Sup. Ct. 478]; *Oregon Ry. Co. v. Oregonian Ry. Co.,* 130 U.S. 1, [9 Sup. Ct. 409]; *York etc. Ry. Co. v. Winans,* 17 How (U.S.) 30; *Green Bay etc. Co. v. Union S. B. Co.,* 107 U.S. 98, [2 Sup. Ct. 221]; *Cumberland T. and T. Co. v. Evansville,* 127 Fed. 187; Morawetz on Corporations, ***584** secs. 565, 1114, 1115, 1129; 1 Clark & Marshall on Corporations, sec. 162.)

In 1903 the legislature enacted section 361a of the Civil Code, which reads as follows:

"No sale, lease, assignment, transfer or conveyance of the business, franchise and property, as a whole, of any corporation now existing, or hereafter to be formed in this state, shall be valid without the consent of stockholders thereof, holding of record at least two thirds of the issued capital stock of such corporation; such consent to be

either expressed in writing, executed and acknowledged by such stockholders, and attached to such sale, lease, assignment, transfer, or conveyance, or by vote at a stockholders' meeting of such corporation, called for that purpose, but with such assent, so expressed, such sale, lease, assignment, transfer or conveyance shall be valid; *provided, however,* that nothing herein contained shall be construed to limit the power of the directors of such corporation to make sales, leases, assignments, transfers or conveyances of corporate property other than those hereinabove set forth."

This enactment is not, on its face, a mere negative or prohibitive statute, forbidding that which before was permitted. It is both affirmative and negative in its terms. Its affirmative provisions may be paraphrased thus: "With the consent of the stockholders thereof, holding of record at least two thirds of its issued capital stock, (expressed in the prescribed manner), any corporation in this state may make a valid sale, lease, assignment, transfer or conveyance of its business, franchises and property, as a whole." It expresses a consent to such transfer in the manner prescribed, as well as a prohibition against such transfer in any other mode.

In the absence of legislative restrictions, it is the law in this state that an ordinary commercial corporation, not doing a public service business, can alienate its entire property whenever it is necessary or proper to do so for the best interests of its stockholders and creditors. (*Miner's Ditch Co. v. Zellerbach,* 37 Cal. 543, 588-592, [99 Am. Dec. 300].) And it would seem that the stockholders and creditors, alone, would have the right to object to such a transfer by a corporation of that character (*Oakland R. R. v. Oakland etc. R. R. Co.,* 45 Cal. 379, [13 Am. Rep. 181]; ***585** *Illinois Bank v. Pacific Railway Co.,* 117 Cal. 332, [49 Pac. 197]), though we presume the state could maintain an action to forfeit the corporate franchise for nonuser or misuser. In the case first cited, the Miner's Ditch Company, which had transferred its entire property, was, in fact, a water company selling water upon the market to miners for their use. But this was before the constitution of 1879 had declared the use of water for sale, rental, or distribution, to be a public use. The opinion distinctly declares it to be a matter of private concern only, and the decision is expressly based on that fact, distinguishing that class of corporations from *quasi*-public corporations. The effect of this statute is, therefore, twofold. It deprives ordinary private business corporations of the power they previously possessed to dispose of their entire property, franchises, and business, as a whole, at the will of a mere majority of the stockholders, or of less than two thirds of them, and it confers upon *quasi*-public corporations the power to make such dispositions with the consent of two thirds of the stockholders expressed in the mode fixed, a power which such corporations did not have before. The words of the section expressly apply to "any corporation" then existing or thereafter to be formed. It constitutes a part of the code devoted to general provisions concerning all corporations, except those of a public nature, such as cities, counties, school districts and the like. There is nothing in the context of the code which requires, or would justify, an interpretation limiting its meaning so as to exclude *quasi*-public corporations. The words are express, positive, not at all ambiguous in this particular and the intent is clear; there is no occasion for resorting to implication to give them an effect not expressly declared, nor for applying the rules restricting the meaning of ambiguous statutes affecting public interests.

It is suggested that, if taken literally, it would give power to transfer the corporate franchise, the right to be a corporation and do business in that capacity. We do not perceive that this is important in this case, even if it were true, for it is not alleged that the defendant is attempting to transfer any franchise of that character. The legislature doubtless had in mind the fact that there are many *quasi*-public corporations doing business in the state and possessing rights and privileges, properly termed "franchises," which they had ***586** acquired and possessed after they became incorporated, and which they had devoted to the public service in which they were engaged and which, therefore, could not be disposed of without legislative assent, and the word franchise was aptly used to describe this class of property and leaves no doubt as to what was intended. The transfer of all its property would not work a dissolution of the corporation, nor operate as a transfer of the corporate franchise. (*Miner's Ditch Co. v. Zellerbach,* 37. Cal. 590, [99 Am. Dec. 300].)

The defendant company had laid its water pipes in the streets of the cities of Pasadena and South Pasadena, was using those streets as a way through which to transmit water to the users, and had the right to make this use of the streets under the provisions of section 19, of article XI, of the constitution. This right, when made available by actual possession and use, is a species of real property,

appropriately designated as a franchise. (*Stockton etc. Co. v. San Joaquin Co.,* 148 Cal. 313, [83 Pac. 54].) The appellant argues that this right, or franchise, is not in its nature, transmissible, or alienable, unless the precise mode of transfer is fixed by statute and a means provided for the enforcement of the use against the transferee, and that section 361a is inadequate in these respects. In this connection counsel cite section 10 of article XII of the constitution, which is as follows:

"The legislature shall not pass any laws permitting the leasing or alienation of any franchise, so as to relieve the franchise or property held thereunder from the liabilities of the lessor or grantor, lessee or grantee, contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges."

It is urged that the effect of a transfer, such as that here proposed, would relieve the defendant corporation of its duty to continue the service of supplying water, which is imposed upon it by reason of its control of the water and its enjoyment of the constitutional franchise to use the streets for its pipe-lines, and that there would be no corresponding transfer of the duty to the transferee of the property, the city of Pasadena, nor any means of enforcing from said city the performance of that duty. The section does not forbid the transfer of a franchise so as to relieve the previous owner thereof, or the grantee or lessee, personally, from liability incurred ***587** in the operation of the franchise, if such a thing were possible. It merely forbids the transfer of a franchise "so as to relieve the *franchise, or property held thereunder,*" from liabilities so incurred or contracted. The code section (361a) authorizes a transfer of such franchise, or of all the interest the possessor may have in it, but it does not purport to relieve the franchise itself, or any property held under it or for its operation, from any liability or charge imposed, or to be imposed, upon it. If the proposed transfer provided that the property and franchise should be free from any such liability existing against it, or thereafter to arise from its possession and use, or attempted to transfer it so as to free it therefrom in the hands of the transferee, the transaction would be, to that extent, void, and the transferee would take the franchise and property pertaining to it subject to all the burdens of this nature, and, so long as it held it, would be obliged to continue the performance of the public service to which the property and franchise had been dedicated, or to allow others to do so in its behalf. (*Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].) This is the purpose and effect of the constitutional provision above given. The transfer will have the effect of divesting the defendant company of the property, and as, according to the admitted allegations, there is no other water supply available, it will then have neither the means nor the ability to continue the performance of the public duty of supplying water for public use. It could not directly abnegate this personal duty without the consent of the proper public authority, and, of course, it could not do it indirectly by the device of transferring to another the only means whereby the duty could be performed. The effect of the statute (sec. 361a) is to give this consent, in pursuance whereof the public agent in charge of the use and property will be changed, and the effect of the constitutional provision is that the new agent must continue to devote the property to the same use as before. There does not appear to be anything unlawful, unconstitutional, or improper in a change so made.

The contention that no remedy exists to compel performance by the successor in interest, is without force. In case of the establishment of a water system of this character, all the persons to whose use the water is appropriated or dedicated are ***588** vested with a right to have the supply continued by whomsoever may be in control thereof. (Const., art. XIV, sec. 1; Civ. Code, secs. 549-552; *Crow v. San Joaquin etc. Co.,* 130 Cal. 309, [62 Pac. 562, 1058]; *McCrary v. Beaudry,* 67 Cal. 120, [7 Pac. 264]; *Price v. Riverside etc. Co.,* 56 Cal. 432.) If the water is supplied for use upon land for its benefit, as for irrigation, the right to receive and use it becomes in the nature of an appurtenance to the land. If it is supplied for personal use to all persons within a certain territory or to all of a certain class within the territory, the right to its use is personal to the inhabitants of the territory, or to the members of the class, as the case may be, so long as they remain such. In either case the right may be enforced against the person in control of the supply and the works by which it is distributed, regardless of the title, by means of an action in *mandamus* to compel the continuance of the distribution, in the usual and proper manner, to those entitled. (*Price v. Riverside etc. Co.,* 56 Cal. 434; *Merrill v. South Side Irr. Co.,* 112 Cal. 426, [44 Pac. 720]; *Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].)

Our conclusion is that all of the objections to the validity of section 361a, and all of the reasons advanced for giving it a meaning different from its literal import, are untenable and that it gives authority to the defendant to make the

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transfer of its business, franchises, and property, as a whole, in the manner prescribed and as here proposed. It is admitted that the statutory manner of making the transfer has been and will be followed.

2. It is settled law that a transfer of property used in a public service, from one corporation to another, although made by a corporation having power to convey, is invalid unless the transferee has the power to accept the property and continue the use to which it has been devoted. If such power is wanting in the transferee, the transfer is not binding on the grantor or lessor. (*Central Transportation Co. v. Pullman P. P. Co.,* 139 U. S. 48, [11 Sup. Ct. 478]; *Thomas v. Railroad Co.,* 101 U. S. 82; *Oregon Ry. Co. v. Oregonian Ry. Co.,* 130 U.S. 1, [9 Sup. Ct. 409]; *Pennsylvania R. R. Co. v. St. Louis R. R. Co.,* 118 U. S. 307, [6 Sup. Ct. 1094].) For the purposes of the case we may concede that the plaintiff, or any private party, has sufficient interest to raise this question.

***589** We are of the opinion that the city of Pasadena has the power to accept the transfer in question and to undertake and perform the public service of supplying the water to the cities of Pasadena and South Pasadena and the respective inhabitants thereof, as it has been heretofore supplied, which is the duty attached to the property and imposed upon the possessor thereof.

The statute of 1891 on this subject is broad and comprehensive. It is as follows:

"Any incorporated city in this state may acquire by gift, purchase, or condemnation proceeding under the power of eminent domain, water, water rights, reservoir sites, rights of way for pipes, aqueducts, flumes, or other conduits, and all other property and appliances suitable and proper for supplying such city and its inhabitants with water." (Stats. 1891, p. 102.)

The special charter of the city of Pasadena gives the city power, "To construct and maintain waterworks, pipes, pipelines, acqueducts and hydrants for supplying the city and its inhabitants with water, *and the right to supply water to persons who live without the city* limits." (Subd. 8, sec. 3, art. I, Stats. 1905, p. 1021.)

It further provides for a board of water commissioners of five members, which board is given "control and management of all water and waterworks that now belong, or may hereafter be acquired by the city," and for a "water fund" which may be applied to the "purchase of necessary lands, water-rights and other property" for the improvement of the water system. (Stats. 1905, p. 1019, subd. 2, sec. 6, art. 6 1/2.) Subdivision 4 of section 3 of article 1, gives the city power "to purchase, receive, have, take, hold, lease, use and enjoy property of every kind and description, *both within and without the limits of said city* and control and dispose of the same for the common benefit." By subdivision 16 of the same section power is given to create a bonded debt, equal to fifteen per cent of the assessed value of the property, to pay the cost of public utilities, and under subdivision 23 it may exercise the right of eminent domain to acquire "water, water-rights and waterworks, *within or without the corporate limits,* necessary or convenient for the use of said city and its inhabitants." (Stats. 1901, pp. 888, 890.)

***590** These provisions are ample to confer power to acquire and carry on a water system outside the city so far as it may be necessary or convenient to do so in order to accomplish the main purpose of furnishing water to the city and its inhabitants. Indeed, it is so seldom that a water supply can be obtained within the limits of a city, especially in this state, that a mere grant of power to provide and supply water to the city and its inhabitants would be construed to give power to acquire for that purpose water supplies without the city. The powers of a municipal corporation include not only those expressly named in the grant, but also "the authority to do such subsidiary acts as are incidental and necessary to the exercise of" the powers specifically described. (*Von Schmidt v. Widber,* 105 Cal. 157, [38 Pac. 682].) Or, as stated by Mr. Dillon, they include "those necessarily or fairly implied in or incident to the powers expressly granted." (1 Dillon on Municipal Corporations, 4th ed., sec. 89; *Hammond v. San Leandro,* 135 Cal. 452, [67 Pac. 692.].) Under powers much less comprehensive in terms it has been held that a municipal or public corporation may carry on a system and supply water to persons outside its limits, whenever it becomes necessary or convenient to do so in order to accomplish the main purpose of supplying waters to those within. In *Fellows v. Los Angeles,* in considering a provision merely giving that city power to acquire water and water-rights within or without the city for the use of its inhabitants, it is said: "In the exercise of this power, it would have the right to buy from any corporation or person, engaged in supplying water for public use outside the city, any surplus water

which such person might possess. If it were necessary, in order to obtain such surplus, the city might, under this power, purchase the entire water supply of such person or corporation and the water plant or system used in connection with it, so that, after operating the system and supplying the persons entitled to use the water, it could devote the surplus to the use of the inhabitants of the city." In *Hewitt v. San Jacinto Irr. Dist.,* 124 Cal. 192, [56 Pac. 893], it was held that an irrigation district, under its general power to acquire and hold such water, water-rights and other property as should be necessary to supply water to irrigate the lands within the district, had power to purchase and hold water already in part used on ***591** lands outside the district, to take it subject to such use and to continue to furnish the water to such outside lands as it had been furnished before.

These authorities would seem sufficient to settle the question in favor of the respondent. The ingenuity of counsel for appellant has, however, suggested many objections to the rule stated and difficulties which he fears may arise in its application, and, in view of the importance of the question, we deem it proper to discuss them at more length.

In considering what powers are necessary, incidental, or fairly to be implied from the powers expressly given to the city of Pasadena by the foregoing provisions, it is proper to look to the conditions surrounding the city at the time. The court will take judicial notice that the two cities interested are situated in a comparatively arid region where there is little, if any, water not already applied to some extremely valuable public or private use, and that water sources in that vicinity are in great demand and command a high price where they can be purchased at all. It appears from the complaint that for many years the defendant company has been supplying water to portions of the two cities, precisely as it does now, the area supplied in South Pasadena being about two thirds of its territory, that more than three hundred families are now supplied therein from this source and that if they are now deprived thereof there is no other known source from which it can be replaced and they would be without water for any purpose. It may well be assumed that Pasadena could obtain no sufficient quantity of water for a municipal water system, except by buying or condemning that portion of the water of the defendant company now distributed to its inhabitants, or some other supply already devoted to use outside the city. It would be bad public policy under these conditions to require a city desiring to obtain water for its inhabitants, to take water in use by others for similar purposes outside its limits, where the effect would be to devastate and depopulate such outside territory. To condemn the individual right of each member of the outside community would be impracticable, and even if it could legally be done it would probably prove too costly for the resources of the city. To separate the supply and endeavor to control, manage, and if necessary, develop and increase the supply from time to ***592** time, in concert or partnership with some other corporation, would probably cause many complications and render the successful administration of the municipal system much more difficult and doubtful. In order to accomplish the purpose for which these powers were given, it is reasonably certain that it would be advisable, and it might be necessary, for the city to take over a supply already partly in use outside and continue the service to the outside territory while supplying the remainder to the use of its own people. These probabilities and the conditions we have stated must have been well known to the framers of the charter, to the people of Pasadena, and to the legislature, when the charter was prepared, adopted, and ratified. In view of all the circumstances, we may reasonably believe that the clause adopted in 1905, giving the "right to supply water to persons who live without the city limits," was intended to authorize a plan such as that here under consideration. If not designed to authorize some similar plan it might as well never have been enacted at all.

Under the constitution South Pasadena has power to fix the rates to be charged for water supplied to its inhabitants and to control the manner of laying and repairing pipes in its streets for that purpose. Necessarily it has this power as against another city engaged in supplying such water, as well as when an individual or water corporation does so. It is suggested that the two cities each represent the sovereign power and would have equal authority in all municipal affairs, that a conflict would ensue, and that such consequences cannot be considered as intended, unless the intention is expressly and unmistakably declared. In this connection the rule is invoked that there cannot be two municipalities exercising the same powers at the same time within the same territory. But the two cities would not be of equal authority with respect to the use of water in South Pasadena, in such a case. South Pasadena would have the power above stated, under the constitution, and Pasadena, so far as that service is concerned, would be

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subject to those powers, to the same extent as the Pasadena Land and Water Company is now subject thereto. In the carrying on of the water service to the people of South Pasadena the city of Pasadena will not be acting in its political, public, or governmental capacity as an agent of the sovereign power equal in all respects to the city within which it ***593** operates. In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi*-public capacity. (*Davoust v. Alameda,* 149 Cal. 70, [84 Pac. 760]; *Illinois etc. Bank v. Arkansas City,* 76 Fed. 271, [22 C. C. A. 171]; *Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 55 Pac. 961].) Having taken over the whole system subject to the burden of supplying a part of the water to inhabitants of South Pasadena, the city of Pasadena will have no greater rights or powers, respecting that part of the service, than its grantor previously had. It will be under the same obligation as its grantor to continue the service and supply the water to all persons who may become entitled to it in the future, so long as it retains possession and control of the property so charged. (*Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].) The powers of the two cities in regard to this water service will be separate and distinct, one will be subordinate to the other, and, hence, there will not be two cities exercising the same powers in the same territory at the same time; South Pasadena, within its own limits, will be the sole representative of sovereignty in the fixing of rates, and in the supervision of the streets; and Pasadena will be subject thereto, as a private person. If, by fixing too low rates, South Pasadena should attempt to compel the service to be made at a loss, Pasadena would have the same remedies, and no greater, in the courts that a *quasi*-public corporation or natural person would have in the same circumstances. The fact that the outside service is within another city does not appear to be a significant factor in the question of the power. If it were in a rural community, the rates charged would be subject to judicial control to make them reasonable. Being in another city, the serving city has a right to demand reasonable rates and may enforce them if not granted. The limitations would not affect the power in one case more than in the other.

The act of March 27, 1897 (Stats. 1897, p. 182), authorizes a city, having in its supply more water than is necessary for its inhabitants, to sell the surplus, but provides that contracts for such sales shall not run for a period longer than one year. It is contended that the service of water to outside communities is not a "municipal affair" within the meaning of that ***594** phrase in section 6, article XI, of the constitution, that it is therefore subject to general laws, and that under the above-mentioned statute the city cannot undertake, as it proposes to do, to render a perpetual water service to the inhabitants of outside territory, which it is claimed, will be equivalent to a contract to sell to them its surplus water for a period longer than one year. There are two answers to this contention. The supplying of water to outside territory, being necessarily a matter incidental to the main purpose of supplying water to its own inhabitants, is as much a municipal affair of Pasadena, as is the main purpose, which is conceded to be such, and therefore the charter provisions relating thereto prevail over general laws, if inconsistent therewith. In truth, however, the city will not be selling its surplus in the sense intended by the statute. The right to the use of the required quantity of this water is now vested in the city of South Pasadena and its inhabitants within the portion of its territory where it is to be served, and the city of Pasadena does not propose to take away this right. It is about to buy only the right of the Pasadena Land and Water Company to the water, which did not include the use. It will be obliged to put it to the same use as fully as that company is now compelled to do. Water which is in this manner dedicated to the use of an outside community cannot be at the same time surplus water subject to sale to others. The sale is already, in effect, accomplished. The city of Pasadena, with respect to this part of the water, will hold title as a mere trustee, bound to apply it to the use of those beneficially interested.

Section 19, of article XI, of the constitution, provides that in any city where there are no municipal waterworks for the supply of its inhabitants "any individual, or any corporation duly incorporated for such purpose," may lay mains in the streets for supplying such water. This grant clearly does not, in terms, extend to a municipal corporation. It is contended that it, in effect, forbids the exercise of such privilege by another city. The provision is intended to further the interest of the public and facilitate the supply of water to the inhabitants of the city, and it should be liberally construed to effect that purpose. When the state gives such power to a city that, as an incident to supplying water to its own people, it may furnish water to the inhabitants of another ***595** city to whose use a part of the water is dedicated, the city having such incidental powers should be considered as a "corporation duly incorporated for such purpose." A city is duly incorporated for all purposes to which its powers

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extend. There is nothing incongruous, or particularly unusual in such an arrangement. In other states similar powers have been upheld. (*Mayo v. Dover etc. Co.,* 96 Me. 539, [53 Atl. 62]; *Cooper v. City of Brooklyn,* 42 N. Y. Supp. 762, [11 App. Div. 71]; *Town of West Hartford v. Hartford W. Com.,* 68 Conn. 323, [36 Atl. 786]; *People v. Briggs,* 50 N. Y. 553; *Pittsburgh v. Brace,* 158 Pa. St. 174, [27 Atl. 854].)

It is alleged that the city of Pasadena threatens and intends, when it has acquired the water system of the defendant corporation, to cut off the supply of water to South Pasadena and its inhabitants, that it is acquiring the water for its own inhabitants whose needs will be so great that the entire water supply will be required therefor, that, in order to carry out its purpose, it will be compelled to refuse to continue supplying water to outside persons, and that it will deprive the plaintiff and its inhabitants of water unless the proposed sale is enjoined. It sufficiently appears from what has been said that, if the other allegations of the complaint are true, this could not lawfully be done. We have shown that if it is attempted the persons injured will have a remedy by a suit in *mandamus.* There will therefore be an adequate remedy at law, and a suit in equity to enjoin the threatened transfer cannot be maintained.

The court below properly held that the complaint did not state facts sufficient to constitute a cause of action.

The judgment is affirmed.

Angellotti, J., McFarland, J., Lorigan, J., Henshaw, J., and Beatty, C. J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Regents of University of California v. East Bay Municipal Utility Dist., Cal.App. 1 Dist., July 6, 2005

26 Cal.3d 154, 604 P.2d 566, 161 Cal.Rptr. 172

COUNTY OF INYO, Petitioner,
v.
PUBLIC UTILITIES COMMISSION,
Respondent; LOS ANGELES DEPARTMENT OF WATER AND POWER, Real Party in Interest

S.F. No. 23990.
Supreme Court of California
January 7, 1980.

SUMMARY

The Public Utilities Commission dismissed the complaint of a county for review of water rates charged it by a municipality located outside of the county on the ground it lacked jurisdiction over the water rates. The commission concluded that it had no jurisdiction over municipally owned utilities unless expressly provided by statute, and that the Legislature's failure to include municipally owned public utilities within the classes of regulated public utilities in Pub. Util. Code, divs. 1 and 2, demonstrated that the Legislature had not granted the commission such jurisdiction.

The Supreme Court affirmed the order of the Public Utilities Commission. The court held that although Cal. Const., art. XII, § 3, does not authorize legislation conferring P.U.C. jurisdiction over a municipally owned water company selling beyond municipal boundaries, such legislation could be enacted under Cal. Const., art. XII, § 5, granting the Legislature plenary power, unlimited by the other provisions of the Constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission. However, the court held that the Legislature has never enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. (Opinion by Tobriner, J., with Bird, C. J., Mosk and Newman, JJ., and White, J.,* concurring. Separate concurring and dissenting opinion by Manuel, J., with Clark, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Waters § 187--Water Litigation--Injunctions--Municipality Selling Water--Rates.
A city which acquires the water system of another community incurs an obligation to deal fairly with its customers in that community and to provide them with reasonable service at reasonable rates. Such an acquiring city, as to the water dedicated to the use of the outside community, holds title as a mere trustee, bound to apply it to the use of those beneficiaries interested. Consequently, such outside community can sue to enjoin rates which are themselves unreasonable, unfair, or fraudulently or arbitrarily established, or which discriminate without a reasonable and proper basis.

(2a, 2b)
Public Utilities § 7--Public Utilities Commission--Jurisdiction Over Water Rates Charged in County by Municipality Not Located in County.
Although Cal. Const., art. XII, § 3, providing that private corporations that own or operate a water supply system to or for the public are public utilities subject to control by the Legislature, does not authorize legislation conferring jurisdiction on the Public Utilities Commission over a municipally owned water company selling beyond its municipal boundaries, such legislation could be enacted under Cal. Const., art. XII, § 5, granting the Legislature plenary power to confer additional authority and jurisdiction upon the commission. However the Legislature has not enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. Thus, the commission properly dismissed for lack of jurisdiction a complaint brought before it by a county challenging the water rates charged its citizens by a municipally owned water utility located outside the county. (Disapproving *City of Pasadena v. Railroad Commission* (1920) 183 Cal. 526 [192 P. 25, 10 A.L.R. 1425], to the extent it contains any contrary reasoning).

[See **Cal.Jur.3d,** Public Utilities, § 15; **Am.Jur.2d,**Public Utilities, § 240.]

(3)

Public Utilities § 7--Jurisdiction--Regulation of Privately Owned Utilities.
In the absence of legislation otherwise providing, the jurisdiction of the Public Utilities Commission to regulate public utilities extends only to the regulation of privately owned utilities.

COUNSEL
L. H. Gibbons, District Attorney, Antonio Rossmann and Ann Nutt for Petitioner.
Janice E. Kerr, Hector Anninos and Ellen S. LeVine for Respondent.
Burt Pines, City Attorney, Edward C. Farrell, Chief Assistant City Attorney, and Edward A. Schlotman, Deputy City Attorney, for Real Party in Interest.

TOBRINER, J.

Petitioner Inyo County seeks review of Public Utilities Commission (hereafter PUC) ruling No. 89576, holding that the PUC lacks jurisdiction over the water rates charged Inyo County and its residents by the Los Angeles Department of Water and Power (hereafter LADWP), a public utility owned and operated by the City of Los Angeles. The county emphasizes the need for PUC regulation because the county's residents, unable to vote in Los Angeles municipal elections, lack any political leverage to prevent exploitation by LADWP. Devoid of political or judicial remedy, petitioner argues, the county's citizens stand exposed to unreasonable water rates.

We point out that the Legislature has the power under article XII, section 5 of the California Constitution to confer authority and jurisdiction upon the commission to regulate the rates charged nonresidents by a municipally owned water system. As we shall explain, however, the PUC can only regulate rates charged by municipally owned public utilities if a specific statute confers such jurisdiction upon the commission. Yet the Legislature apparently has never granted the PUC authority to regulate water rates charged by municipally owned water corporations either to local residents or to customers beyond municipal limits. Consequently we must conclude that we should affirm the ruling of the PUC that it lacks jurisdiction to adjudicate the county's complaint.

A dramatic chapter in California history lies behind the present controversy. [1] The Owens Valley in Inyo County, situated in the lee of the ***157** Sierra Nevada escarpment, receives little rain or snow. The annual snowmelt in the Sierra, however, sends numerous streams into the valley, which flowed through the Owens River into a large lake at the southern end of the valley. During the last decades of the 19th century and the early years of this century, farmers began to divert streams for irrigation, and the valley developed an agricultural economy.

The City of Los Angeles, however, finding its local water supply inadequate for current needs or future growth, also entered into the competition for Owens Valley water. It began to purchase water rights and, in 1913, completed an aqueduct from the valley to Los Angeles. During the 1920s the city continued to acquire water rights, overcoming intense local opposition from valley residents, who dynamited the aqueduct on several occasions and once forceably seized possession of the aqueduct gates.

As the city acquired virtually complete control of valley water, residents pressed damage claims for loss of business and declining value of property. Responding to those claims, the city began to purchase Inyo County land, eventually acquiring 240,000 acres. The city then constructed a second aqueduct, and extended its water rights north, taking in almost all of the Owens Valley watershed and including part of the Mono Lake Basin. Thus, Los Angeles obtained the water essential to its growth; Inyo County, deprived of its water, was transformed from a rich agricultural region to one dependent on tourism; the Owens River and Owens Lake ran dry.

During its acquisition of Inyo County water rights, the city also purchased the water systems of the Towns of Big Pine, Independence, Laws, and Lone Pine, four unincorporated communities in Inyo County. Acting through LADWP, the city administers these water systems, which do not connect with the aqueducts supplying Los Angeles itself.

The city derives authority to own and operate water systems for other communities from article XI, section 9 of the California Constitution, and section 211 (j) of the Los Angeles City Charter. The charter further directs LADWP to set water rates: "such rates shall be of uniform operation, as near as may be, and shall be fair and reasonable, taking into consideration, among other things, the nature of the use, the quantity supplied and the value of the service; provided, further, that the rates inside the city may be less, but not greater, than the rates outside the city for the same or similar uses." (L. A. City Charter,

§ 220(2).) ***158** Rates, set by LADWP, must be approved by the Los Angeles City Council.

Until 1973, LADWP charged users in the four Inyo communities, including Inyo County itself, on a flat rate basis even though Los Angeles users paid metered rates. From 1973 to 1978, however, LADWP changed its Inyo rates to the metered rates that were charged city residents.[2] Inyo County filed suit in the Fresno County Superior Court to enjoin the increase. When that court denied the county's motion for preliminary injunction, the county filed the present complaint with the PUC.

In a unanimous opinion, the PUC dismissed the complaint for want of jurisdiction. The PUC reasoned that it had no jurisdiction over municipally owned utilities unless expressly provided by statute, and that the Legislature's failure to include municipally owned public utilities within the classes of regulated public utilities in divisions 1 and 2 of the Public Utilities Code[3] demonstrated that the Legislature had not granted the PUC such jurisdiction. The county seeks review of that decision.

The county argues that only regulation by the PUC can prevent abuse of LADWP's monopoly position. The PUC, it observes, was established to "protect the people from the consequences of ... monopoly in the public service industries." (*Sale v. Railroad Commission* (1940) 15 Cal.2d 612, 617 [104 P.2d 38].) PUC regulation of rates charged by municipally owned utilities to municipal residents is not compelled because the residents exert political control over the rates. (Cf. *McDaniels v. Park-Woods Mutual Water Co.* (1971) 72 Cal.P.U.C. 247.) But because "the inhabitants of the outside city ... have no voice as voters or taxpayers in the shaping of the affairs of the municipality engaged in ***159** the business, ... to deny the power of the commission to intervene is apparently to leave these consumers ... at the mercy of the other city." (Comment (1921) 9 Cal.L.Rev. 252, 255; see *City of Lamar v. Town of Wiley* (1926) 80 Colo. 18 [248 P. 1009, 1010].) The county therefore urges that we uphold PUC jurisdiction to prevent municipally owned utilities from charging unfair or discriminatory rates to its nonresident customers.

The county further contends that without PUC review it lacks an adequate remedy to challenge unfair rates. ([1]) Although the county recognizes that it can institute suit in superior court to attack the LADWP rates (see *Elliott v. City of Pacific Grove* (1975) 54 Cal. App.3d 53 [126 Cal.Rptr. 371]; *People* ex rel. *Pub. Util. Com. v. City of Fresno* (1967) 254 Cal.App.2d 76 [62 Cal.Rptr. 79]; *Durant v. City of Beverly Hills* (1940) 39 Cal.App.2d 133 [102 P.2d 759]), it urges the inadequacy of that remedy. The county does not deny that decisions discussing judicial review of rates establish that a city which acquires the water system of another community incurs an obligation to deal fairly with its customers in that community and to provide them with reasonable service at reasonable rates. (See *South Pasadena v. Pasadena Land, etc. Co.* (1908) 152 Cal. 579, 587-588, 594 [93 P. 490].) Such an acquiring city, as to the water dedicated to the use of the outside community, holds "title as a mere trustee, bound to apply it to the use of those beneficially interested." (*Id.*, at p. 594; see *Durant* v. *City of Beverly Hills, supra*, 39 Cal.App.2d 133, 138.) Consequently, the county can sue to enjoin rates which are themselves "unreasonable, unfair, or fraudulently or arbitrarily established" (*Durant v. City of Beverly Hills, supra*, 39 Cal.App.2d 133, 139), or which discriminate without a reasonable and proper basis (*Elliott v. City of Pacific Grove, supra*, 54 Cal.App.3d 53, 59).[4]

Judicial review of rates, however, does not provide protection comparable to PUC proceedings. The PUC maintains an expert, independent staff to investigate rate requests; it renders an independent decision on each record that it examines. A court, in contrast, must limit its review to the rates established by the involved utility and must depend upon ***160** the expert testimony presented by the parties. (See *Sale* v. *Railroad Commission, supra*, 15 Cal.2d 612, 617-618.) Thus while judicial review can protect consumers against plainly unfair rates, that remedy does not offer an opportunity for the detailed analysis and careful structuring of rates possible in a PUC proceeding.

To establish PUC jurisdiction to hear the county's complaint, however, it must do more than present arguments which might persuade the Legislature to confer such jurisdiction. The county must demonstrate both (1) that the California Constitution permits the Legislature to grant the PUC such jurisdiction over municipally owned water corporations and (2) that the Legislature has enacted a statute exercising this authority. We review first the question of constitutional power.

The controlling constitutional provisions, article XII, sections 3 and 5, represent a revision without substantive change of the original 1911 and 1914 amendments. Those

amendments had permitted the Legislature to extend the authority of the Railroad Commission to water companies and other public utilities.[5] Section 3 states in part that "*Private corporations and persons* that own, operate, control, or manage a line, plant, or system for the ... furnishing of ... water ... to or for the public, and common carriers, are public utilities subject to control by the Legislature. The Legislature may prescribe that additional classes of private corporations or other persons are public utilities." (Italics added.) Section 5 grants the Legislature further authority: "plenary power, unlimited by the other provisions of this constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission." ([2a]) The county relies primarily upon its contention that a municipal utility, when selling to customers beyond the municipal boundaries, constitutes a "private corporation or person" within the meaning of section 3. ***161**

To understand fully the county's position, we must begin with the 1908 decision in *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, which expounds the law of utility rate regulation prior to the 1911 constitutional amendments. Plaintiffs in *South Pasadena* sought to enjoin the City of Pasadena from purchasing a private water system serving the neighboring City of South Pasadena on the ground, among others, that the inhabitants of South Pasadena would have no protection against arbitrary imposition of rates or termination of service by Pasadena.

Rejecting that contention, the court stated: "In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi-public* capacity. ... The powers of the two cities in regard to this water service will be separate and distinct ...; South Pasadena, within its own limits, will be the sole representative of sovereignty in the fixing of rates, and in the supervision of the streets; and Pasadena will be subject thereto, as a private person. ..." (152 Cal. at p. 593.)

Based upon this language, the county argues that LADWP, in supplying water to Inyo County and its residents, acts in a private, proprietary capacity. The county therefore contends that the 1911 and 1914 constitutional amendments authorizing Railroad Commission jurisdiction over "private corporations and persons" encompasses jurisdiction over such sales by LADWP. Putting the argument differently, the county maintains that the supplied city (South Pasadena in the cited case) possessed, prior to 1911, the power to regulate the rates charged by the supplying city, and that the 1911 and 1914 amendments transferred that power to the Railroad Commission.[6] ***162**

Later, in 1920, the Railroad Commission itself presented similar arguments to justify its asserted jurisdiction to regulate the electrical rates charged by the City of Pasadena to consumers in South Pasadena. This court unanimously rejected those arguments. We stated that "It is not true that a city is a private corporation when carrying on a municipally owned public utility. ... The phrase 'private corporation' ... should be given its natural and ordinary meaning, and ... does not include municipal corporations." (*City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, 530.)

Noting that the ballot argument in favor of the 1911 amendment specified that it would "'extend the jurisdiction of the Railroad Commission to every kind of public service excepting that furnished by municipally owned plants"' (p. 531), the court stated that "To hold that under all these circumstances the voters nevertheless were aware of the refined distinction between the governmental powers and the proprietary powers of cities and towns and understood that municipal corporations, so far as they exercise proprietary functions, were to be included in the definition of public utilities and in the term 'private corporations,' seems to be the height of absurdity." (*Id.*) Dismissing the consumers' reliance upon *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, the court declared that this precedent, decided in 1908, could have no bearing on the interpretation of the 1911 amendment.

The county contends that *City of Pasadena* was wrongly decided and should be overruled. It argues that the term "private corporations and persons" in the 1911 amendment confers jurisdiction upon the Railroad Commission over municipally owned utilities to the extent that such utilities were selling beyond municipal limits. The county, however, can point to no language in the constitutional amendments, the ballot arguments presented for or against those amendments, or the legislation enacted pursuant to those amendments which distinguishes a municipally owned utility operating within city limits from that operating outside ***163** such limits.[7] Since the county concedes - as it must, in view of the

history of the 1911 and 1914 amendments and the ballot arguments presented in their behalf - that the amendments do not encompass municipally owned utilities selling within city limits, its failure to find a basis for the distinction in the constitutional language fatally flaws its argument. [8]

The county also asserts that *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, was discredited by our decision in *Los Angeles Met. Transit Authority v. Public Util. Com.* (1963) 59 Cal.2d 863 [31 Cal.Rptr. 463]. In the latter case, we upheld the constitutionality of a specific statute granting the PUC authority over safety standards of the Metropolitan Transit Authority. Noting that section 23 authorized PUC authority over "every private corporation ... and every common carrier," we held the section encompassed all common carriers, including those owned by a municipal government. Our opinion expressly disapproved "statements in *City of Pasadena* to the effect that the Legislature is prohibited by the California Constitution from conferring regulatory jurisdiction over municipally owned public utilities." (59 Cal.2d at p. 870.) But *Los Angeles Met. Transit Authority* relies upon, and emphasizes, the explicit language that confers jurisdiction over "every common carrier" and does not involve itself in the question whether the term "private corporations and persons" in section 3 includes a municipally owned utility. The conclusion of *City of Pasadena* that the language of section 3 does not include such a utility is therefore not affected by the *Transit Authority* case.

Although we conclude that section 3 of article XII would not authorize legislation conferring PUC jurisdiction over a municipally owned water company selling beyond municipal boundaries, we note that the county persuasively points out that such legislation could be enacted under section 5 of that article. That section, we noted earlier, grants the ***164** Legislature "plenary power, unlimited by the other provisions of this constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission."

Our decision in *City of Pasadena* discussed section 22 of article XII, the predecessor to current section 5. The section at that time granted the Legislature plenary power "unlimited by any provision of this constitution" and did not require that such power be consistent with article XII. The court observed, however, that such language could not be taken literally, since it would permit the Legislature to vest all powers of government in the commission. The court held that the section must be limited to the subject matter of article XII. Observing that section 22 before the 1911 amendment dealt only with common carriers and transportation companies, the court concluded that the authority conferred by section 22 should be limited to regulation of such enterprises. (183 Cal. at p. 533.)

In our opinion, *City of Pasadena's* construction of section 22 (present § 5) is unduly narrow. Under both the explicit language of current section 5 and the basic reasoning of *City of Pasadena*, that section grants the Legislature the power to confer additional authority and jurisdiction on the PUC consistent with the scope of article XII. Article XII is not limited to common carriers and transportation companies, over which the commission has had jurisdiction since 1879, but deals with public utilities of all forms. [9] Thus possible legislation conferring PUC jurisdiction over municipally owned water companies, selling beyond municipal borders or even within such borders, would fall clearly within the scope of present article XII, section 5. [10]

Our final task must then be to determine whether the Legislature has enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. Review of the pertinent legislation reveals no statute that expressly provides for such jurisdiction. We do find statutory references to municipal corporations as *purchasers* of water but absolutely no references to such corporations as *suppliers* of ***165** water. The omission of any reference to municipal corporations as suppliers of water can hardly serve as the basis for inferring legislative intent that such corporations be the subject of PUC regulation. As we shall explain, we have concluded that the Legislature has not exercised its constitutional authority to grant the PUC jurisdiction over municipally owned water companies supplying outside customers.

The Public Utilities Code provides for the regulation of water companies in sections 2701-2712. Section 2701 states the jurisdictional basis for such regulation: "Any person, firm, or corporation ... owning, controlling, operating or managing any water system within this State, who sells, leases, rents, or delivers water to any person, firm, corporation, municipality, or any other political subdivision of the State ... is a public utility ...

subject ... to the jurisdiction, control, and regulation of the commission. ...” Thus the seller, lessor, renter, or deliverer of water to a municipality may be regulated as a public utility but the municipality itself is not. Under this section municipalities may be purchasers from regulated public utilities, but are not themselves regulated utilities.

Nor do the earlier sections that define terms appearing in section 2701 so much as refer to a municipal utility. Section 240 defines “water system” as all facilities used for the storage, distribution, and sale of water. Section 241 states that “water corporation” includes “every corporation or person owning, controlling, operating or managing any water system for compensation ....” [11] The term “corporation” includes “a company, an association, and a joint stock association” (Pub. Util. Code, § 204); “person” includes “an individual, a firm, and a copartnership” (Pub. Util. Code, § 205). None of these sections mention municipal corporations. In contrast, section 207 dealing with recipients of utility service, defines the term “public, or any portion thereof” to include “a person, private corporation, municipality, or other political subdivision.” ***166**

Section 216 does define the broad term “public utility.” Subdivision (c) states that “When a person or corporation performs any service or delivers any commodity to any person, private corporation, municipality or other political subdivision of the state, which in turn ... performs such service or delivers such commodity to or for the public ... such person or corporation is a public utility subject to the jurisdiction, control, and regulation of the commission ....” Here the municipality appears as a middleman in the distribution of utility services; yet it is only the originating “person or corporation,” not the municipality, which is a public utility subject to regulation.

Although none of the foregoing sections mentions municipally owned public utilities, the Legislature has not ignored that subject. Sections 10001 to 10251 expressly regulate municipally owned utilities. Section 10005 specifically authorizes municipally owned utilities to sell outside the corporate limits. No provision, however, grants the PUC jurisdiction to regulate the rates for such sales. [12]

([3]) Established doctrine declares that, “In the absence of legislation otherwise providing, the Commission's jurisdiction to regulate public utilities extends only to the regulation of privately owned utilities.” (*Los Angeles Met. Transit Authority v. Public Utilities Com.* (1959) 52 Cal.2d 655, 661 [343 P.2d 913].) ([2b]) The Court of Appeal noted the same principle in *People* ex rel. *Pub. Util. Com. v. City of Fresno, supra*, 254 Cal.App.2d 76, 81. We reiterated in *Orange County Air Pollution Control Dist. v. Public Util. Com.* (1971) 4 Cal.3d 945, 953 at footnote 7 [95 Cal.Rptr. 17, 484 P.2d 1361], that “The commission has no jurisdiction over municipally owned utilities unless expressly provided by statute.” Significantly, when the Legislature first granted the PUC regulatory authority over the Los Angeles Metropolitan Transit Authority, it enacted such a specific statute (Stats. 1951, ch. 1668, p. 3804), and observed that in so doing it “has made exceptions to a long established policy. ...” (Stats. 1951, ch. 1668, § 13.4.) No comparable enactment grants the PUC jurisdiction in the case at bar.

From the foregoing review of the relevant statutes, it is plain - and the county concedes - that the Legislature has not granted the PUC jurisdiction ***167** over rates charged by municipally owned utilities to municipal residents. Although the county seeks to distinguish regulation of rates charged nonresidents from those charged residents, we can find nothing in the statutes or the cases interpreting them which supports that distinction. However compelling the policy arguments in favor of such a distinction, we must reluctantly conclude that the Legislature has not as yet accepted that distinction as a basis for legislation extending the jurisdiction of the PUC.

Legislative inaction in this instance may stem from the fear that any statute conferring jurisdiction on the PUC would be unconstitutional under the reasoning of *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526. This opinion should make clear, however, that the Legislature possesses the power, pursuant to article XII, section 5, to grant the PUC regulatory authority over municipally owned utilities selling to outside customers. Although petitioner eloquently describes the inequity of subjecting the residents of Inyo County to the fixing of water rates by the LADWP over whom they have neither control nor check, and although we hold the Constitution enables the Legislature to confer jurisdiction upon the PUC to correct this situation, we can find no present statute or decision which sanctions PUC power to exercise a bifurcated rate regulation leaving the LADWP the power to fix water rates for residents of the city and

delegating to the PUC the power to fix water rates for nonresidents. [13]

The order of the Public Utilities Commission is affirmed.

Bird, C. J., Mosk, J., Newman, J., and White, J.,* concurred. ***168**

MANUEL, J.,

Concurring and Dissenting.

I concur in the judgment affirming the commission's order dismissing the complaint for want of jurisdiction. I do not agree, however, that article XII, section 5 of our Constitution grants the Legislature the power to confer on the commission jurisdiction to regulate municipally owned water companies. The express terms of that section establish that the Legislature's power "to confer additional authority and jurisdiction" must be exercised in a manner "consistent with this article" - i.e., article XII. In my view a municipally owned water company, being neither a "private corporation or person" nor a "common carrier" within the meaning of section 3 of that article, may not be made subject to commission jurisdiction under the present provisions of our Constitution. (See *City of Pasadena* v. *Railroad Commission* (1920) 183 Cal. 526, 532-536 [192 P. 25, 10 A.L.R. 1425]; cf. *Los Angeles Met. Transit Authority v. Pub. Util. Com.* (1963) 59 Cal.2d 863 [31 Cal.Rptr. 463, 382 P.2d 583].)

Clark, J., concurred. ***169**

Footnotes

* Assigned by the Chairperson of the Judicial Council.

1 The historical discussion in this opinion is based upon Nadeau, The Water Seekers (1974) part 1, and Smith (edit.), Deepest Valley (rev. ed. 1978) pages 188-227.

2 Los Angeles City Ordinance No. 150,787. Nonresidents outside of Inyo and Mono Counties, however, are charged at 1.5 times the rates charged city residents. (L. A. Ord. No. 150,359.)
The gist of Inyo's complaint, as we understand it, is not that LADWP charges discriminatory rates to Inyo customers, but that its rates fail to take into account that such customers can be served at much lower cost than Los Angeles customers; the county objects in particular to paying for part of the cost of transporting Owens Valley water to Los Angeles and for part of the cost of furnishing Colorado River water (which is not used in Inyo County) to Los Angeles.

3 Division 1 of the Public Utilities Code provides for regulation of public utilities; division 2 provides for regulation of related businesses such as highway carriers, household goods carriers, and charter carriers.

4 A showing that rates are discriminatory is in itself insufficient to fulfill the complainant's burden of proof (see *Durant v. City of Beverly Hills, supra*, 39 Cal.App.2d 133, 138); a showing, however, that such discrimination rests solely on the nonresident status of the customer, and not on the cost of service or some other reasonable basis, will prove the rate invalid (see *Elliott* v. *City of Pacific Grove, supra*, 54 Cal.App.3d 53, 59).

5 1911 constitutional amendments modified article XII, section 23 to permit the Legislature to grant the Railroad Commission, whose jurisdiction had previously been limited to transportation companies, jurisdiction over many other forms of public utilities including water companies. The amendments also modified section 22 to restate the powers of the Railroad Commission and authorized the Legislature to grant it additional powers.
The 1911 amendments had provided that the voters of a city could choose to retain city control over public utilities and thereby withhold jurisdiction from the Railroad Commission. The 1914 constitutional amendment limited this reserved power to enforcement of "local police, sanitary and other regulations, other than the fixing of rates."
In 1946 the Railroad Commission became the Public Utilities Commission.

6 The court in *City of Pasadena v. Railroad Commission* (1920) 183 Cal. 526, 535 [192 P. 25, 10 A.L.R. 1425], stated that "by reason of the recent amendment of section 19, article XI [authorizing cities to provide services to nonresidents], in the few cases where one city operates a municipal plant for a public service which extends into another city, there may be some doubt which one of the the two cities shall have the right to fix the rates for such outside service. The terms of the amendment are not clear on the question." Our review of the amendment indicates that, rather than being ambiguous on the subject, it does not deal with the issue at all, and thus leaves in effect the prior law, as stated in *South Pasadena*, that the city where the customers reside has priority in establishing rates for service.

For the analogy of the *South Pasadena* case to fit the present controversy, however, Inyo County would be compelled to maintain that a county government under pre-1911 law had authority to regulate the rates charged by public utilities to unincorporated communities within the county, and that the 1911 and 1914 amendments transferred this power to the Railroad Commission. It is not, however, clear that counties, as distinguished from incorporated cities, possessed the power to regulate utility rates. *South Pasadena* referring to sales by a municipally owned utility in another incorporated city, states that "If it were in a rural community, the rates charged would be subject to judicial control to make them reasonable. Being in another city, the serving city has a right to demand reasonable rates and may enforce them if not granted." (152 Cal. 579, 593.)

7 Even the language from *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, on which the county relies, fails to draw this distinction. It states that "[i]n administering ... a water system, even within its own limits, a city [acts] in a proprietary and only *quasi-public* capacity." (152 Cal. at p. 593.) Such language offers no basis for treating a municipally owned utility as a "private corporation or person" only when it sells to outside customers.

8 The county argues that the term "person" can be construed to include a municipal corporation (see *City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 277 [123 Cal.Rptr. 1, 537 P.2d 1250]), but does not explain how it can reasonably be construed to include a municipal corporation only to the extent that such corporation is selling to nonresidents.

9 *City of Pasadena's* assertion that a municipally owned utility is not a "public utility" within the meaning of article XII (see 183 Cal. at pp. 530-532), although not expressly disapproved by *Los Angeles Met. Transit Authority v. Public Util. Com., supra*, 59 Cal.2d 863, is clearly inconsistent with the holding in the *Transit Authority* case sustaining PUC jurisdiction over a municipally owned common carrier.

10 Language in *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, contrary to the reasoning of this opinion is disapproved.

11 The county notes that in *Los Angeles Met. Transit Authority v. Public Util. Com., supra*, 59 Cal.2d 863, the court relied on the statutory definition of "common carrier" as including "every corporation or person engaged ... in the ownership, control, operation, or management of any passenger stage ...." (59 Cal.2d at p. 868, quoting from Pub. Util. Code, §§ 211, 226.) We held that a publicly owned carrier was still a common carrier within the quoted definition. (59 Cal.2d at p. 869.) The county suggests on similar reasoning that a municipal corporation operating a water system, should be considered a "water corporation" under section 241. The argument is plausible, but offers no basis for distinguishing between sales of that corporation to customers within city limits and sales to outside customers.

12 In similar fashion, sections 11501 to 14509 regulate municipal utility districts. Section 12804 authorizes sales to customers outside the district limits, but no section provides for PUC regulation of such sales.

13 The county relies upon Colorado decisions, in particular *City of Lamar v. Town of Wiley, supra*, 248 P. 1009, which permit the Colorado Public Utilities Commission to regulate rates charged by municipal utilities to nonresident customers. The structure of Colorado constitutional and statutory law on this subject, however, is quite different from ours. Under Colorado statutes, public utilities subject to regulation include municipal utilities. (See Colo. Rev. Stats., § 40-3-103.) Their public utilities commission, however, is forbidden to interfere with the performance of a "municipal function" by the state Constitution (Colo. Const., art. V, § 35), which courts have construed to bar commission regulation of rates charged by a municipal utility to city residents. (See *Town of Holyoke v. Smith* (1924) 75 Colo. 286 [226 P. 158].) California statutes, on the other hand, fail to grant our PUC any authority over municipal utilities other than common carriers; thus the PUC lacks jurisdiction over sales to nonresidents whether or not such sales are considered a municipal function.

* Assigned by the Chairperson of the Judicial Council.

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110 Cal.App.4th 1176
Court of Appeal, Second
District, Division 7, California.

COUNTY OF LOS ANGELES,
Plaintiff and Respondent,
v.
COMMISSION ON STATE MANDATES, Defendant and Appellant;
Department of Finance, Real
Party in Interest and Appellant.

No. B156870.
|
July 28, 2003.

Synopsis

Background: County petitioned for writ of mandate, seeking to vacate decision of the Commission on State Mandates which denied county's test claim for costs associated with statute requiring local law enforcement officers to participate in two hours of domestic violence training. The Superior Court, Los Angeles County, No. BS06497, Dzintra I. Janavs, J., granted the petition. Commission appealed.

[Holding:] The Court of Appeal, Muñoz (Aurelio), J., sitting by assignment, held that statute did not mandate any increased costs and thus Commission was not required to reimburse county for its costs.

Reversed with directions.

Attorneys and Law Firms

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Lloyd W. Pellman, County Counsel and Stephen R. Morris, Principal Deputy County Counsel, for Plaintiff and Respondent County of Los Angeles.

Opinion

MU#NOZ (AURELIO), J. *

A 1995 amendment to Penal Code section 13519 [1] requires local law enforcement officers to participate in two hours of domestic violence training. The issue on appeal is whether this amendment resulted in a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution for the time spent by local law enforcement officers in such domestic violence training, although such officers were already required to spend 24 hours in continuing education training and the domestic violence training could be included within this total.

This administrative mandamus proceeding was commenced by the County of Los Angeles (County) on a "test claim" filed with and denied by the ***1179** Commission on State Mandates (Commission) for the County's costs incurred pursuant to section 13519. The trial court found that California Constitution article XIII B, section 6 required the state to reimburse the County for domestic violence training because the County's needs and priorities might be detrimentally affected when the state took away two hours of training by mandating that two specific hours of training occur. The trial court remanded the proceedings to the Commission to determine the amount of costs actually incurred by the County. We reverse.

FACTUAL BACKGROUND AND PROCEDURAL HISTORY

Article XIII B, section 6 of the California Constitution provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service...." (Cal. Const., art. XIII B, § 6.) The Commission is charged with hearing and deciding local agency claims of entitlement to reimbursement under article XIII B, section 6. (Gov.Code, § 17551, subd. (a).) Pursuit of such a

claim is the exclusive remedy for this purpose (Gov.Code, § 17552), but the Commission's decisions are subject to review by administrative mandamus, under Code of Civil Procedure section 1094.5. (Gov.Code, § 17559, subd. (b).) A "test claim" is "the first claim, ****423** including claims joined or consolidated with the first claim, filed with the commission alleging that a particular statute or executive order imposes costs mandated by the state." (Gov.Code, § 17521; see also *Kinlaw v. State of California* (1991) 54 Cal.3d 326, 328–329, 331–333, 285 Cal.Rptr. 66, 814 P.2d 1308.)

In 1995, section 13519, subdivision (e) was amended to provide: "(e) Each law enforcement officer below the rank of supervisor who is assigned to patrol duties and would normally respond to domestic violence calls or incidents of domestic violence shall complete, every two years, an updated course of instruction on domestic violence that is developed according to the standards and guidelines developed pursuant to subdivision (d). The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government." [2]

***1180** Penal Code section 13510, [3] et seq. requires the State Commission on Peace Officer Standards and Training (POST) to promulgate regulations establishing minimum state standards relating to physical, mental, and moral fitness, and minimum training standards for law enforcement officers. Compliance with POST's requirements is voluntary. (Pen.Code, § 13510 et seq.) POST has a certification program for peace officers specified in sections 13510 and 13522 and for the California Highway Patrol. (Pen.Code, §§ 13510.1, subds. (a)-(c), 13510.3.)

On or about December 26, 1996, the County filed a "test claim" [4] pursuant to Government Code section 17522 with the Commission. [5] The test claim alleged that ****424** neither local police officers nor their agencies were given any choice with respect to compliance with section 13519. However, in order to implement the training, the County was required to redirect its officers from their normal work in order to attend the two-hour domestic violence training. The County alleged this substitution of the work agenda of the state for that of the local government violated California Constitution article XIII B, section 6. Furthermore, the County pointed to language in Penal Code section ***1181** 13519, subdivision (e), providing that, "The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government entities."

The test claim alleged that although POST bore the cost of producing two-hour telecourses on domestic violence, POST did not provide for any local law enforcement salary reimbursement for attendance at any type of POST-certified training, including the state-mandated costs for domestic violence training. Adherence to POST standards is voluntary by local law enforcement agencies, but POST requires a minimum of 24 hours of training every two years, to be chosen from a menu of available courses. POST does not dictate the courses that must be taken. POST courses include training in, among other things: interviewing techniques for detectives, defensive weapons, CPR, conflict resolution, bicycle patrol, ritual crime and hate group offenders, vehicle pullover and approach, confessions, courtroom demeanor, electronic vehicle recovery systems, vehicle theft investigation, and cultural awareness.

The POST program gives local law enforcement agencies flexibility in choosing training programs to meet their differing needs. In addition to domestic violence training, certain other programs are legislatively mandated: dealing with the developmentally disabled/mentally ill training (implemented July 1992); high speed vehicle pursuits (implemented November 1994); first aid/CPR (a 21–hour initial course, with a 12–hour refresher course every three years); missing persons (implemented January 1989); racial and cultural diversity (implemented August 1983); sexual harassment (implemented November 1994); and sudden infant death syndrome (implemented July 1990). The time requirements for these other required courses vary. Some elective courses require 40 hours to complete.

However, the County alleged because there were no existing resources available for the domestic violence training, the annual training costs of the County were increased as a result of section 13519. The County Sheriff's Department incurred costs of $170,351.45 for domestic violence training for the fiscal year 1996–1997.

In support of its test claim, the County submitted legislative materials relating to section 13519. These included: A July 5, 1995 memorandum in which the Assembly Committee on Appropriations stated that Senate Bill No. 132, proposing the changes ****425** to 13519, understood the "training requirement could have significant costs to local law enforcement in terms of expense and public safety, as most departments will be forced to backfill for offices while the officers are being trained or will have to forego the ***1182** backfilling and have fewer offices on patrol. Any monetary costs incurred by local law enforcement for the officer backfilling would be state-reimbursable." The Committee noted that, "Although this bill states that the costs of the additional domestic violence training be absorbed by POST within existing resources, the reality is that this bill would create additional non-absorbable costs to POST since POST will be unable to exclude one type of training in favor of the domestic violence training, and instead will have to add this training to their current curriculum. The current curriculum of POST training is just as important to the maintaining of public safety as is the additional domestic violence training."

In addition, the Department of Finance recognized the fiscal impact of section 13519 on local law enforcement agencies, and opposed the adoption of Senate Bill No. 132. Diane M. Cummins, Deputy Director of the State Department of Finance, wrote to Senator Diane Watson on April 20, 1995, that, "This bill also specifies that training required pursuant to this measure 'shall be funded from existing resources', as specified. In so specifying, this bill would also require law enforcement agencies to modify existing training programs by increasing training requirements. Finance believes this bill contains a local mandate without providing necessary funding, thereby being in conflict with the California Constitution, which requires the state to fund local mandate costs. Although there is no specific information available regarding the level of additional costs which would be imposed on law enforcement agencies, the Department of Finance is opposed to legislation which would result in additional General Fund expenditures, given the State's ongoing fiscal constraints." The Department of Finance recognized that, "Adding mandatory domestic violence training requirement would result in an additional unknown cost for specified state and local law enforcement agencies...."

Furthermore, Gretchen Fretter, Chair of the California Academy Directors' Association (an organization of training center directors and police academy managers throughout the state) wrote Senator Watson on March 9, 1995, to express the association's concerns with Senate Bill No. 132. Fretter's analysis indicated that the mandate would incur a $300,000 price tag for each training cycle. The California State Sheriffs' Association also wrote to express concerns about Senate Bill No. 132, including that POST estimated the domestic violence training would add costs to local agencies of at least $750,000 per year. Glen Fine, the Deputy Executive Director of POST, on July 11, 1997, wrote to the Department of Finance to inform it that POST understood that the author of Senate Bill No. 132 was aware of POST's training requirements of 24 hours every two years, and it was "the author's intent ... that domestic violence update training become a statutorily required priority for inclusion within this 24 hours of training every two years."

***1183** POST issued a bulletin in February 1996 advising local law enforcement agencies of the new domestic violence training requirement.

The Department of Finance contended that the Legislature intended the domestic violence continuing education and training to be funded from existing resources. The department also contended that POST, which was charged with developing training ****426** standards for local law enforcement agencies, provided over $21 million in existing state funds for domestic violence training. POST pointed out that the drafter of the statute recognized the 24 hours of continuing education every two years, and intended the domestic violence training to be a priority to be included within this 24–hour requirement.

At the hearing before the Commission on the test claim, representatives of the County testified that POST refused to pay for the programs, putting the burdens on local governments, and POST itself had estimated the annual cost of the program at $750,000. A representative of the Sheriff's Department (Captain Dennis Wilson) testified that of the 24 hours required, any combination of courses could be used to meet the requirement. However, inclusion of the domestic violence training would take away two of those hours of training, resulting in only 22 hours. The Sheriff's Department would conduct domestic violence training even in the absence of the mandate; indeed; the

Sheriff's Department actually conducted about 72 hours of training per officer per year. There was no funding for any of this training. The Sheriff's Department has 8,200 sworn officers, and two hours of training per officer adds up to 16,400 hours, which translates to 10 full-time officers for a year. Without funding for the domestic violence training, the Sheriff's Department therefore would lose the time equivalent of 10 officers for a year. Taking officers off the street impacts upon crime.

Martha Zavala testified on behalf of the County that the domestic violence training could not merely be subsumed within the 24 hours already required. With the training mandates already required by POST which exceed the 24–hour minimum, adding the domestic violence training only further exceeds the minimum 24 hours. There is no room to carve it out. Meeting POST requirements is not really an option. Thus, both the Sheriff's Department and the County agree they are seeking reimbursement of the costs of the training and the cost of replacing the officers on the street while in training.

A representative of POST testified that what POST provides in reimbursement to local law enforcement agencies is a small percentage of the real costs incurred. Where the training involved is through a telecourse, POST provides no reimbursement. There has been no increase in POST's budget since the amendment to section 13519. About 30 of the courses provided by POST are mandated training.

***1184** A representative of the Department of Finance testified that the Department believed section 13519 did not create state-mandated reimbursable program because the legislation indicated it was the Legislature's intent not increase the training costs of local government, and the training could be fit within the existing 24–hour requirements.

The Commission's staff prepared an analysis in advance of the hearing which found against the County. The "Staff Analysis" pointed out that section 13519 was originally added by chapter 1609, Statutes of 1984.[6] Originally, the statute required ****427** that POST develop and implement a basic course of instruction for the training of law enforcement officers in the handling of domestic violence complaints, with local law enforcement agencies encouraged, but not required, to provide updates. These provisions of the 1984 version were the subject of a test claim filed by the City of Pasadena in 1990. That claim was denied because the original statute did not require local agencies to implement or pay for a domestic violence training program, did not increase the minimum basic training course hours or advanced officer training hours, and did not require local agencies to provide domestic violence training pursuant to the POST skills and knowledge standards.

Legally, the Staff Analysis pointed out that in order for a statute to impose a reimbursable state-mandated program, the statutory language must (1) direct or obligate an activity or task upon local government entities, and (2) the required activity or task must be new or it must create an increased or higher level of service over the former required level of service. (See, e.g., *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.) The Staff Analysis concluded that section 13519 did impose a new activity or program upon local law enforcement agencies. However, because the language of the statute requiring that the instruction be funded from existing resources, it was an open question whether the program imposed *mandated* costs. Because POST's minimum requirements remained at 24 hours before and after enactment of section 13519, there were no increased training hours and costs associated with the domestic violence training course. Instead, the course should be accommodated or absorbed by ***1185** local law enforcement agencies within their existing resources available for training. Thus, the Staff Analysis recommended denial of the test claim.

After the public hearings were held, the Commission adopted the findings of the Staff Analysis. The Commission issued its own statement of decision which substantially adopted the findings of the Staff Analysis.

Subsequently, the County filed a petition for writ of mandate with the trial court, seeking vacation of the Commission's decision. The County argued that the domestic violence training constituted a state-mandated reimbursable program because it (1) was mandatory, while the POST certification training was optional; and (2) the only way local agencies could avoid the costs of the new program would be to redirect their efforts from the training they were already providing as part of POST training, thereby losing flexibility to design programs to suit their own needs.

The Commission argued that the County's focus on "redirected" manpower costs was misplaced. Instead, the focus should be on whether the local law enforcement agencies actually experience increased expenditure of their tax revenues. (See, e.g., *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283, 101 Cal.Rptr.2d 784.) In *County of Sonoma,* the court stated that California Constitution article XIII B, section 6 was designed to prevent the state from forcing programs on local governments, and such a forced program is one which results in "increased actual expenditures ****428** of limited tax proceeds that are counted against the local government's spending limit. Section 6, located within a measure aimed at limiting expenditures, is expressly concerned with 'costs' incurred by local governments as a result of state-mandated programs, particularly when the costs of compliance with a new program restrict local spending in other areas." (*County of Sonoma,* at p. 1284, 101 Cal.Rptr.2d 784.) Because section 13519 did not require the County to incur "actual increased costs" because the domestic violence training could be subsumed within the 24–hour POST training requirement, no state reimbursement was required.

The Commission also argued the state had not required the County to incur increased training costs for salaries of officers to receive the two-hour training. POST's requirements did not change as a result of section 13519, and indeed, shortly after the enactment of section 13519, POST forwarded a bulletin to local law enforcement agencies suggesting they include domestic violence training within the 24–hour continuing training requirement.

***1186** The trial court heard argument, after which the trial court adopted its tentative statement of decision in which it noted that, "Although it may be reasonable in some or even most cases for a deputy to eliminate an unrequired two-hour elective in favor of the required domestic violence instruction, what about cases where the County's needs and priorities would be affected detrimentally, if two hours of electives were taken away? At what point would additional mandated courses result in increased costs? [¶] The record also shows that, for some deputies, other state-required training already amounts to 24 hours or more per two-year period. For these deputies, the two hours of mandated domestic violence training cannot be accommodated by giving up other training but must be added on, for added cost. It appears that, if domestic violence instruction is to be funded from existing resources on a deputy-by-deputy basis, the County clearly does incur increased costs." The trial court granted the petition, and remanded the matter for consideration of the exact amount of increased costs.

DISCUSSION

I. STANDARD OF REVIEW.

[1] **[2]** **[3]** The determination whether the statute here at issue established a mandate under California Constitution article XIII B, section 6, is a question of law. (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Under Government Code section 17559,[7] administrative mandamus is the exclusive means to challenge a decision of the Commission on a subvention claim. (*Redevelopment Agency v. Commission on State Mandates* (1997) 55 Cal.App.4th 976, 980, 64 Cal.Rptr.2d 270.) "Government Code section 17559 governs the proceeding below and requires that the trial court review the decision of the Commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, we are generally confined to inquiring whether substantial evidence supports the court's findings and judgment. [Citation.] However, we independently review the superior court's legal ****429** conclusions about the meaning and effect of constitutional and statutory provisions. [Citation.]" (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810, 53 Cal.Rptr.2d 521.)

***1187** II. SECTION 13519'S IMPOSITION OF A DOMESTIC VIOLENCE TRAINING COURT IS NOT A STATE–MANDATED PROGRAM WITHIN THE MEANING OF CONSTITUTION ARTICLE XIII B, SECTION 6 BECAUSE IT DOES NOT CONSTITUTE AN "INCREASED LEVEL OF SERVICE."

[4] The Commission essentially makes two arguments. First, it contends that the County did not incur "increased costs." Reimbursement to the County under Constitution article XIII B, section 6 is not required unless there is a showing of actual increased costs mandated by the state. (See, e.g., *County of Los Angeles v. State of California, supra,* 43 Cal.3d at pp. 54–55, 233 Cal.Rptr. 38, 729 P.2d 202; *City of Sacramento v. State of California* (1990)

50 Cal.3d 51, 66–67, 266 Cal.Rptr. 139, 785 P.2d 522.) In *City of Sacramento,* the court explained that the statutory concept of "costs mandated by the state" and the constitutional concept of article XIII B, section 6, are identical. (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 67, fn. 11, 266 Cal.Rptr. 139, 785 P.2d 522.) Because of this limited, rather than broad definition, of "costs mandated by the state," article XIII B, section 6 does not provide reimbursement for every single increased cost. Thus, the trial court's finding that reimbursement was required where a statute results in a "redirection of local effort" or a "detrimental change in a local agency's needs and priorities" is not supported by the law. Rather, it constitutes an inappropriate injection of an equitable standard into the analysis.

Secondly, the Commission argues that no "mandate" exists. To the contrary, substantial evidence supports its finding that section 13519 does not result in *increased* costs because nothing in the statute requires the County, or any other local law enforcement agency, to incur actual increased costs. The total number of hours required (the 24 minimum hours of POST training) did not increase because of the domestic violence training; rather, POST still requires 24 hours and in fact after the passage of section 13519, POST forwarded a bulletin to law enforcement agencies recommending that they include domestic violence training within the 24-hour continuing professional training requirement. Because the POST standards are voluntary, if a local law enforcement agencies adds two hours of domestic violence training to either the POST requirement or its own requirements, it is doing so at its own discretion.

In response, the County points out that the Commission's conclusion is based upon the erroneous premise that local law enforcement agencies could escape increased costs simply by dropping two hours of their existing POST training and substituting the new domestic violence training. However, the evidence in the legislative history indicates that this was not the intent of the Legislature when it was considering section 13519, nor was it the position of ***1188** the Department of Finance. The County also contends that local law enforcement agencies incur costs when they sacrifice their existing training programs for the new domestic violence training. Although POST does not dictate those courses for which a local law enforcement agency must offer training and POST does pay for much of the training material, most of the cost of POST training is borne by the local law enforcement agencies in the form of personnel costs while deputies spend 24 hours of work time receiving ****430** training. Furthermore, if a mere legislative directive to fund a new program with existing resources would let the state off the hook for reimbursement, then the constitutional rule of mandate reimbursement would be a nullity: any new state mandate can be funded by canceling other services. Because California Constitution article XIII B, section 6 was designed to prevent the elimination of the fiscal freedom of local governmental agencies to expend their limited available resources without being straightjacketed by state-mandated programs, the Commission's "within existing resources" rule would circumvent the purposes of article XIII B, section 6.

A. The Purposes of California Constitution Article XIII B, Section 6 Guide Our Analysis.

[5] In 1978, the voters approved Proposition 13, which added article XIII A to the California Constitution. Article XIII A "imposes a limit on the power of state and local governments to adopt and levy taxes. [Citation.]" (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 486, 280 Cal.Rptr. 92, 808 P.2d 235.) In 1979, Proposition 4 added article XIII B to the Constitution, which imposed a complementary limit on governmental spending. (*San Francisco Taxpayers Assn. v. Board of Supervisors* (1992) 2 Cal.4th 571, 574, 7 Cal.Rptr.2d 245, 828 P.2d 147.) These two constitutional provisions "work in tandem, together restricting California government's power both to levy and to spend for public purposes." (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 59, fn. 1, 266 Cal.Rptr. 139, 785 P.2d 522.) Their goal is to protect citizens from excessive taxation and government spending. (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 61, 233 Cal.Rptr. 38, 729 P.2d 202.)

[6] California Constitution article XIII B, section 6, provides in relevant part: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service." Article XIII B, section 6, prevents the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are "ill equipped" to assume increased financial responsibilities because of the taxing and spending limitations of articles

XIII A and XIII B. (*County of Fresno v. State of California, supra,* 53 Cal.3d at p. 487, 280 Cal.Rptr. 92, 808 P.2d 235.) Section 6 thus requires the state "to pay for any new ***1189** governmental programs, or for higher levels of service under existing programs, that it imposes upon local governmental agencies. [Citation.]" (*Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1577, 15 Cal.Rptr.2d 547.)

[7] [8] [9] [10] [11] [12] [13] State mandate jurisprudence has established that in general, local agencies are not entitled to reimbursement of all increased costs mandated by state law, but only those resulting from a "new" program or an "increased level of service" imposed upon them by the state. (*Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 835, 244 Cal.Rptr. 677, 750 P.2d 318.) A "program" is defined as a program which carries out the "governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202.) A program is "new" if the local governmental entity had not previously been required to ****431** institute it. (*City of San Jose v. State of California, supra,* 45 Cal.App.4th at p. 1812, 53 Cal.Rptr.2d 521.) State mandates are requirements imposed on local governments by legislation or executive orders. (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 50, 233 Cal.Rptr. 38, 729 P.2d 202.) Since the purpose of California Constitution article XIII B, section 6 is to avoid governmental programs from being forced on localities by the state, programs which are not unique to the government do not qualify; the programs must involve the provision of governmental services. (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 68, 266 Cal.Rptr. 139, 785 P.2d 522.) Further, in order for a state mandate to be found, the local governmental entity must be required to expend the proceeds of its tax revenues. (*Redevelopment Agency of the City of San Marcos v. Commission on State Mandates, supra,* 55 Cal.App.4th at p. 986, 64 Cal.Rptr.2d 270.) Lastly, there must be compulsion to expend revenue. (*City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 780, 783, 200 Cal.Rptr. 642 [revisions to Code of Civil Procedure required entities exercising the power of eminent domain to compensate businesses for lost goodwill did not create state mandate, because the power of eminent domain was discretionary, and need not be exercised at all]; *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) In *Lucia Mar,* the court explained article XIII B, section 6. "The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of article XIIIB because the programs are not 'new.' " (*Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.)

However, in spite of all of the above, "increased level of service" is not defined in California Constitution article XIII B, section 6 or in the ballot materials. (***1190** *Long Beach Unified School District v. State of California* (1990) 225 Cal.App.3d 155, 173, 275 Cal.Rptr. 449.) Furthermore, "Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate." (*City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197, 75 Cal.Rptr.2d 754.)

In *City of San Jose v. State of California, supra,* 45 Cal.App.4th 1802, 53 Cal.Rptr.2d 521, Government Code section 29550 authorized counties to charge cities and other local entities for costs of booking into county jails persons who had been arrested by employees of the cities and other entities. (45 Cal.App.4th at p. 1806, 53 Cal.Rptr.2d 521.) The State argued the measure merely reallocated booking costs, no shifting from state to local entities, therefore not within article XIII B, section 6. (45 Cal.App.4th at p. 1806, 53 Cal.Rptr.2d 521.) The city contended counties function as agents of the state, charged with enforcement of state's criminal laws; detaining and booking integral part of this process. (*Id.* at p. 1808, 53 Cal.Rptr.2d 521.) The Commission found maintenance of jails and detention of prisoners, had always been a local matter, and cities and counties were both forms of local government; therefore, there was no shift in costs between *state* and local entities.

Furthermore, the terms of Government Code section 29550 were discretionary, not mandatory. (*City of San Jose v. State of California, supra,* 45 Cal.App.4th at pp. 1808–1809, 53 Cal.Rptr.2d 521.) *City of San Jose* found no cost had been improperly transferred to the local

government **432 entities because the cost of capture, detention and housing of persons charged with crimes had traditionally been borne by the counties. (*Id.* at p. 1813, 53 Cal.Rptr.2d 521.) *City of San Jose* rejected the cities' argument that the county was acting as agent of the state because it was "not supported by recent case authority, nor does it square with definitions particular to subvention analysis." (*Id.* at p. 1814, 53 Cal.Rptr.2d 521.) California Constitution article XIII B treated cities and counties alike; Government Code section 17514 defines "costs mandated by the state" to mean any increased costs that a "local agency" is required to incur. Because both cities and counties were to be treated alike for purposes of subvention analysis, nothing in article XIII B, section 6 prohibits the shifting of costs between local government entities. (*City of San Jose,* at p. 1815, 53 Cal.Rptr.2d 521.)

In *County of Los Angeles v. State of California, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, Labor Code sections 4453, 4453.1 and 4460, increased the maximum weekly wage upon which temporary and permanent disability indemnity was computed from $231 to $262.50 per week. In addition, Labor Code section 4702 increased certain death benefits from $55,000 to $75,000. The trial court held that because the changes did not exceed costs of living changes, they did not create an "increased level of service." (43 Cal.3d at p. 52, 233 Cal.Rptr. 38, 729 P.2d 202.) The County argued the terms of California Constitution article XIII B, section 6, do not contain an exception for increased costs which do not exceed the inflation rate. (43 Cal.3d at p. 53, 233 Cal.Rptr. 38, 729 P.2d 202.) The County relied on certain repealed Revenue and *1191 Taxation Code definitions which had equated any program which imposed "additional costs" as being within the constitutional provision of "increased level of service." (*Id.* at p. 53, 233 Cal.Rptr. 38, 729 P.2d 202.) *County of Los Angeles* rejected this interpretation. "If the Legislature had intended to continue to equate 'increased level of service' with 'additional costs,' then the provision would be circular: 'costs mandated by the state' are defined as 'increased costs' due to an 'increased level of service,' which, in turn, would be defined as 'additional costs.' " (*Id.* at p. 55, 233 Cal.Rptr. 38, 729 P.2d 202.) An examination of the language of California Constitution article XIII B, section 6 shows that "by itself, the term 'higher level of service' is meaningless." *Id.* at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202. Rather, it must be read in conjunction with the phrase " 'new program.' " *Ibid.* "Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing 'programs.' " (*Ibid.*) By " 'program,' " the voters meant "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, imposed unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Ibid.*) 233 Cal.Rptr. 38, 729 P.2d 202.) The ballot materials provided that article XIII B, section 6 would "not allow the state government to *force programs* on local governments without the state paying for them." (43 Cal.3d at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202.) "Laws of general application are not passed by the Legislature to 'force' programs on localities." (*Id.* at p. 57, 233 Cal.Rptr. 38, 729 P.2d 202.) In light of this, "[t]he language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay **433 for any incidental increase in local costs.... If the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated that the word 'program' was being used in such a unique fashion." (*Id.* at p. 57, 233 Cal.Rptr. 38, 729 P.2d 202.) Therefore, there was no need to pay for increase in worker's compensation, because it is not a program administered by local agencies to provide service to the general public. Local government entities are indistinguishable in this respect from private employers. (*Id.* at pp. 57–58, 233 Cal.Rptr. 38, 729 P.2d 202.)

In *City of Sacramento v. State of California, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, chapter 2 of Statutes of 1978 extended mandatory coverage under the state's unemployment insurance laws to include state and local governments and nonprofit organizations. *City of Sacramento* held there was no obligation on the part of the state to provide funds because there was no "unique" obligation imposed upon local governments, nor was there any requirement of new or increased governmental services. (50 Cal.3d at p. 57, 266 Cal.Rptr. 139, 785 P.2d 522.) As the court stated, the measure was adopted to conform California's system to federal laws. (*Id.* at p. 58, 266 Cal.Rptr. 139, 785 P.2d 522.) Because the measure required local governments to provide unemployment benefits to their own employees, the state had not compelled provision of a new or increased level of service to the public at the local level. Rather, it had

merely required local government to provide the same benefits as private ***1192** employers. (*Id.* at p. 67, 266 Cal.Rptr. 139, 785 P.2d 522.) The purpose of California Constitution article XIII B, section 6 was to avoid governmental programs from being forced on localities by the state: Therefore, programs which are not unique to the government do not qualify. (50 Cal.3d at p. 67, 266 Cal.Rptr. 139, 785 P.2d 522.) The benefits at issue here have nothing to do with the provision of governmental services, and are therefore not within the scope of section 6. (50 Cal.3d at p. 68, 266 Cal.Rptr. 139, 785 P.2d 522.)

In *Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d 830, 244 Cal.Rptr. 677, 750 P.2d 318, Education Code section 59300 required school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped. *Lucia Mar* held section 59300 constituted a "new" program of higher level of service because cost of program had been shifted from the state to a local entity. "The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of [California Constitution] article XIIIB because the programs are not 'new.' " (44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.)

On the other hand, in *County of San Diego v. State of California, supra,* 15 Cal.4th 68, 61 Cal.Rptr.2d 134, 931 P.2d 312, pursuant to 1982 legislation, the state withdrew from counties Medi–Cal funding for medically indigent persons (MIP's). (*Id.* at pp. 79–80, 61 Cal.Rptr.2d 134, 931 P.2d 312.) To offset this change in coverage, the state set up an account as a mechanism to transfer state funds to counties to pay for Medi–Cal expenses, and sufficient funds had been available in this account to enable the state to fully fund San Diego County's Medi–Cal costs. (*Id.* at p. 80, 61 Cal.Rptr.2d 134, 931 P.2d 312.) However, in fiscal year 1990–1991, insufficient funds were available. (*Ibid.*) The state argued that no mandate for reimbursement existed because the counties had always borne the responsibility of paying for indigent medical care pursuant to Welfare & Institutions Code section 17000. (*County of San Diego,* at pp. 91–92, 61 Cal.Rptr.2d 134, 931 P.2d 312.) In finding ****434** reimbursement was mandated, the Supreme Court found that at the time California Constitution article XIII B, section 6 was enacted, the state was fully funding Medi–Cal for MIP's and the County bore no responsibility for those costs. (*County of San Diego,* at p. 93, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Thus, in enacting Medi–Cal, the Legislature had shifted the cost of indigent medical care from the counties to the state. (*Id.* at pp. 96–97, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Given this background, the Legislature excluded MIP's from Medi–Cal, knowing full well that it would trigger the counties' obligation to pay for medical care as providers of last resort. (*Id.* at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Therefore, the 1982 legislation "mandated a ' "new program" ' on counties by 'compelling them to accept financial responsibility in whole or in part for a program,' i.e., medical care for adult MIP's, 'which was funded entirely by the state before the advent of article XIII B.' " (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312, citing *Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.) Otherwise, " 'County taxpayers would be forced to accept new taxes or see the county ***1193** forced to cut existing programs further....' " (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312.)

The Commission relies heavily on *County of Sonoma v. Commission on State Mandates, supra,* 84 Cal.App.4th 1264, 101 Cal.Rptr.2d 784. In *County of Sonoma,* the challenged legislation added section 97.03 to the Revenue and Taxation Code, and reduced the amount of property tax revenue to be allocated to local government pursuant to a formula, allocating an equal portion to a "Educational Revenue Augmentation Fund (ERAF)" for distribution to school districts. (84 Cal.App.4th at pp. 1269–1270, 1275, 101 Cal.Rptr.2d 784.) The net effect of the legislation was to decrease counties' tax revenues, although school revenues remained stable, and satisfied the constitutional necessity of maintaining a minimum level of funding for schools pursuant to California Constitution article XIV, section 8. (84 Cal.App.4th at p. 1276, 101 Cal.Rptr.2d 784.) In *County of Sonoma,* the County argued that the reallocation of tax revenues constituted a state-mandated cost of a new program. (*Id.* at p. 1276, 101 Cal.Rptr.2d 784.) The court held that section 6 subvention was limited to "increases in actual costs." Because none of the County's tax revenues were expended, the legislation did not come within section 6. "Proposition 4 [the initiative enacting article XIII B] was aimed at controlling and capping government spending, not curbing changes in revenue allocations.

Section 6 is an obvious [complement] to the goal of Proposition 4 in that it prevents the state from forcing extra programs on local governments in a manner that negates their careful budgeting of expenditures. A forced program that would negate such planning is one that results in increased actual expenditures of limited tax proceeds that are counted against the local government's spending limit. Section 6, located within a measure aimed at limiting expenditures, is expressly concerned when 'costs' incurred by local government as a result of state-mandated programs, particularly with the costs of compliance with a new program *restrict local spending in other areas.*" (84 Cal.App.4th at pp. 1283–1284, 101 Cal.Rptr.2d 784 (emphasis added).)

County of Sonoma discerned a further requirement of California Constitution article XIII B, section 6: that the costs incurred must involve programs previously funded exclusively by the state. In imposing this limitation, *County of Sonoma* relied on language in ****435** *County of San Diego v. State of California, supra,* 15 Cal.4th 68, 61 Cal.Rptr.2d 134, 931 P.2d 312 that "section 6 prohibits the state from shifting to counties the costs of state programs for which the state assumed complete financial responsibility before adoption of section 6." (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 99, fn. 20, 61 Cal.Rptr.2d 134, 931 P.2d 312.) *County of Sonoma* determined that because the statute at issue only involved a reallocation of funds between entities already jointly responsible for providing a service (education), no state-mandated reimbursable program existed. (*County of Sonoma v. Commission on State Mandates, supra,* 84 Cal.App.4th at p. 1289, 101 Cal.Rptr.2d 784.)

[14] [15] [16] ***1194** Based upon the principles discernable from the cases discussed, we find that in the instant case, the legislation does not mandate a "higher level of service." In the case of an existing program, an increase in existing costs does not result in a reimbursement requirement. Indeed, "costs" for purposes of California Constitution article XIII B, section 6, does not equal every increase in a locality's budget resulting from compliance with a new state directive. Rather, the state must be attempting to divest itself of its responsibility to provide fiscal support for a program, or forcing a new program on a locality for which it is ill-equipped to allocate funding.

We agree that POST certification is, for all practical purposes, not a "voluntary" program and therefore the County must, in order to comply with section 13519, add domestic violence training to its curriculum. POST training and certification is ongoing and extensive, and local law enforcement agencies may chose from a menu of course offerings to fulfill the 24–hour requirement. Adding domestic violence training obviously may displace other courses from the menu, or require the adding of courses. Officer downtime will be incurred. However, merely by adding a course requirement to POST's certification, the state has not shifted from itself to the County the burdens of state government. Rather, it has directed local law enforcement agencies to reallocate their training resources in a certain manner by mandating the inclusion of domestic violence training.

Furthermore, the state has not shifted from itself the cost of a program previously administered and funded by the state. Instead, the state is requiring certain courses to be placed within an already existing framework of training. This loss of "flexibility" does not, in and of itself, require the County to expend funds that previously had been expended on the POST program by the state. Instead, "[t]he purpose for which state subvention of funds was created, to protected local agencies from having the state transfer its cost of government from itself to the local level, is therefore not brought into play" by a directive that POST-certified studies include domestic violence training. (*Redevelopment Agency of the City of San Marcos v. Commission on State Mandates, supra,* 55 Cal.App.4th at p. 986, 64 Cal.Rptr.2d 270.) Any increased costs are merely "incidental" to the cost of administering the POST certification.

[17] [18] While we are mindful that legislative disclaimers, findings and budget control language are not determinative to a finding of a state-mandated reimbursable program (*Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 541, 234 Cal.Rptr. 795), our interpretation is supported by the hortatory statutory language that, "The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase ****436** the annual training costs of local ***1195** government entities." (§ 13519.) Thus, while the County may lose some flexibility in tailoring its training programs, such loss of flexibility does not rise to the

level of a state-mandated reimbursable program because the loss of flexibility is incidental to the greater goal of providing domestic violence training. Every increase in cost that results from a new state directive does not automatically result in a valid subvention claim where, as here, the directive can be complied with by a minimal reallocation of resources within the entity seeking reimbursement. Thus, while there may be a mandate, there are no increased costs mandated by section 13519.

DISPOSITION

The judgment of the trial court is reversed. The trial court is directed to enter a new and different judgment denying the County's petition for writ of mandate and reinstating the findings of the Commission.

We concur: PERLUSS, P.J., and WOODS, J.

All Citations

110 Cal.App.4th 1176, 2 Cal.Rptr.3d 419, 03 Cal. Daily Op. Serv. 6658, 2003 Daily Journal D.A.R. 8347

Footnotes

* Judge of the Los Angeles Superior Court assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.

1 Hereafter section 13519.

2 The currently enacted version of this provision is found at section 13519, subdivision (g), and reads, "Each law enforcement officer below the rank of supervisor who is assigned to patrol duties and would normally respond to domestic violence calls or incidents of domestic violence shall complete, every two years, an updated course of instruction on domestic violence that is developed according to the standards and guidelines developed pursuant to subdivision (d). The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government entities." (Stats.1998, ch. 701, § 1, designated the paragraph following subd. (a) as subd. (b) and redesignated the remaining subdivisions accordingly; in redesignated subd. (c), inserted par. (5), listing the signs of domestic violence as an instruction topic, and redesignated pars. (5) to (16) as pars. (6) to (17).)

3 Penal Code section 13510, subdivision (a), provides in relevant part: "For the purpose of raising the level of competence of local law enforcement officers, [POST] shall adopt, and may from time to time amend, rules establishing minimum standards relating to physical, mental, and moral fitness that shall govern the recruitment of any city police officers, peace officer members of a county sheriff's office, marshals or deputy marshals of a municipal court, peace officer members of a county coroner's office...."

4 The test claim also challenged the incident-reporting requirements of Penal Code section 13730, which imposed a new program upon local law enforcement agencies to include in the domestic violence incident report additional information regarding the use of alcohol and controlled substances by the alleged abuser, and any prior domestic violence responses to the same address. The County did not contest the Commission's outcome relating to this portion of the test claim, and therefore this issue is not before us on appeal.

5 In 1984, the Legislature created a statutory procedure for determining whether a statute imposes state-mandated costs on a local agency within the meaning of California Constitution article XII B, section 6. (See Gov.Code, § 17500 et seq.) The local agency files a test claim with the Commission, which holds a public hearing and determines whether the statute mandates a new program or increased level of service. (Gov.Code, §§ 17521, 17551, 17555.) If the Commission finds that a claim is reimbursable, it then determines the amount of reimbursement. (Gov.Code, § 17557.) The local agency then follows statutory procedures to obtain reimbursement. (See Gov.Code, § 17558 et seq.) Where the Commission finds no reimbursable mandate, the local agency can challenge this finding by administrative mandate proceedings under Code of Civil Procedure section 1094.5. (See Gov.Code, § 17552 [these provisions "provide the sole and exclusive procedure by which a local agency ... may claim reimbursement for costs mandated by the state as required by Section 6"].)

6 The history of section 13519 is as follows: Added by Statutes 1984, chapter 1609, section 2, pages 5711–5713. Amended by Statutes 1985, chapter 281, section 1, pages 1305–1306, effective July 26, 1985; Statutes 1989, chapter 850, section 3; Statutes 1991, chapter 912 (Sen. Bill No. 421), section 1, pages 4086–4088; Statutes 1993, chapter 1098 (Assem. Bill No. 1268), section 8, pages 6162–6163; Statutes 1995, chapter 965 (Sen. Bill No. 132), section 1, pages 7377–7380; Statutes 1998, chapter 606 (Sen. Bill No.1880), section 13; Statutes 1998, chapter 701 (Assem. Bill No. 2172), section 1;

Statutes 1999, chapter 659 (Sen. Bill No. 355), section 4. The 1995 amendment, at issue here, rewrote subdivision (e), which prior to amendment read: "(e) Forty thousand dollars ($40,000) is appropriated from the Peace Officers Training Fund [POST] in augmentation of Item 8120–001–268 of the Budget Act of 1984, to support the travel, per diem, and associated costs for convening the necessary experts." (Stats.1993, ch. 1098, § 8, p. 6188.)

7 Government Code section 17559, subd. (b), provides: "A claimant or the state may commence a proceeding in accordance with the provisions of Section 1094.5 of the Code of Civil Procedure to set aside a decision of the commission on the ground that the commission's decision is not supported by substantial evidence. The court may order the commission to hold another hearing regarding the claim and may direct the commission on what basis the claim is to receive a rehearing."

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214 Cal.App.3d 1538, 263 Cal.Rptr. 351, 1990 O.S.H.D. (CCH) P 28,784

COUNTY OF LOS ANGELES,
Plaintiff and Appellant,
v.
DEPARTMENT OF INDUSTRIAL RELATIONS
et al., Defendants and Respondents

No. C005023.
Court of Appeal, Third District, California.
Oct 27, 1989.

SUMMARY

After the State Board of Control denied a county's claim for reimbursement of costs incurred in complying with certain elevator safety regulations promulgated by the California Occupational Safety and Health Administration, the county sought mandamus, declaratory, and injunctive relief in the superior court. The court granted the state's motion for summary judgment. (Superior Court of Sacramento County, No. 315287, Darrel W. Lewis, Judge.)

The Court of Appeal affirmed. It held principles of administrative collateral estoppel did not preclude the state from challenging a prior decision of the Board of Control finding such costs were a reimbursable state-mandated program under Cal. Const., art. XIII B, and Rev. & Tax. Code, §§ 2207 and 2231. The court also held that providing elevators equipped with fire and earthquake safety features is not "a governmental function of providing services to the public" such as to make a county's costs of complying with state safety regulations requiring those features in all elevators reimbursable as a state-mandated program. (Opinion by Carr, J., with Puglia, P. J., and DeCristoforo, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
State of California § 12--Fiscal Matters--Appropriations--Mandated Costs--Reimbursable Programs.
Costs incurred by local governments in carrying out state-mandated programs are reimbursable under Cal. Const., art. XIII B, only if they are programs that carry out the governmental function of providing services to the public, or laws that, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

[See **Cal.Jur.3d,** State of California, § 78.]

(2a, 2b)
Administrative Law § 73--Adjudication--Operation and Effect of Decisions and Orders--Collateral Estoppel--Effects of Supreme Court Decision.
Principles of administrative collateral estoppel did not preclude the state from challenging a prior decision of the State Board of Control, finding that certain state elevator safety regulations were a reimbursable state-mandated program (Cal. Const., art. XIII B; Rev. & Tax. Code, §§ 2207, 2231). Even if all the elements for collateral estoppel were present, the earlier finding predated by eight years the Supreme Court's enunciation of the definitions for such programs, and nothing in the record of the earlier decision suggested the board considered the program criteria later stated by the Supreme Court.

(3)
Judgments § 81--Res Judicata--Collateral Estoppel--Criteria for Application.
Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. For the doctrine to apply, the issues in the two proceedings must be the same, the prior proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved.

[See **Am.Jur.2d,** Judgments, § 415 et seq.]

(4)
Administrative Law § 73--Adjudication--Operation and Effect of Decisions and Orders--Collateral Estoppel--Requisites.
Collateral estoppel applies to prior administrative adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) it resolved disputed issues properly before it; and (3) all

parties were provided with the opportunity to fully and fairly litigate their claims.

(5a, 5b)
Elevators and Escalators § 2--Safety Regulations--County Program as State Mandate.
Providing elevators equipped with fire and earthquake safety features is not "a governmental function of providing services to the public" nor a "unique requirement" imposed on local governments, such as to make a county's costs of complying with safety regulations requiring those features in all elevators in California reimbursable as a state-mandated program under Cal. Const., art. XIII B, and Rev. & Tax. Code, §§ 2207 and 2231.

COUNSEL
De Witt W. Clinton, County Counsel, and Paul T. Hanson, Deputy County Counsel, for Plaintiff and Appellant.
John K. Van de Kamp, Attorney General, Richard M. Frank and Linda A. Cabatic, Deputy Attorneys General, for Defendants and Respondents.

CARR, J.

In this appeal from summary judgment in favor of defendant State Department of Industrial Relations (State), plaintiff County of Los Angeles (County) asserts rights to reimbursement for programs alleged to be state mandated. County filed a complaint and petition for mandate claiming reimbursement from State for costs incurred in complying with new elevator earthquake and fire safety regulations promulgated by the California Occupational Safety and Health Administration (OSHA). The trial court concluded these regulations did not constitute a state-mandated program requiring reimbursement and entered summary judgment for State.

County urges three alternative bases of recovery on appeal: (1) principles of administrative collateral estoppel preclude State from relitigating whether the safety regulations amount to a state-mandated program; (2) even if State is not bound by an earlier administrative decision, the definition of "program" articulated in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] (*Los Angeles*) and relied upon by the trial court is inapplicable to this case; and (3) even if *Los Angeles* applies, the OSHA regulations fit its definition. [1] We disagree with each claim and shall affirm the judgment.

Factual and Procedural Background

In 1975, OSHA added or amended numerous elevator fire and earth-quake safety measures in title 8 of the California Code of Regulations (i.e., §§ 3014, subds. (c), (d), 3015, subd. (c), 3030, subds. (f), (k), 3032, subds. ***1541** (a), (c), 3034, subd. (a), 3041, subds. (c), (d), 3053, subd. (c), and 3111, subd. (c).) [2] These regulations applied to all elevators, whether publicly or privately owned.

At the time relevant herein, reimbursement provisions for expenses incurred in complying with state-mandated local programs were embodied in Revenue and Taxation Code sections 2201 et seq. Revenue and Taxation Code section 2231, subdivision (a) provided in part: "The state shall reimburse each local agency for all 'costs mandated by the state', as defined in Section 2207." (Stats. 1978, ch. 794, § 1.1, p. 2546.) That section stated: "'Costs mandated by the state' means any increased costs which a local agency is required to incur as a result of the following: [¶] (a) Any law enacted after January 1, 1973, which mandates a new program or an increased level of service of an existing program; [¶] (b) Any executive order issued after January 1, 1973, which mandates a new program; [¶] (c) Any executive order issued after January 1, 1973, which (i) implements or interprets a state statute and (ii), by such implementation or interpretation, increases program levels above the levels required prior to January 1, 1973." (Stats. 1977, ch. 1135, § 4, p. 3646.) [3]

In 1979, voters enacted Proposition 4, adding article XIII B to the California Constitution. Section 6 of that article provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." This provision became effective July 1, 1980. (See Cal. Const., art. XIII B, § 10.) ***1542**

These statutory and constitutional provisions granted relief to local governments whose powers to raise property taxes had been curtailed but who were still subject to increased expenses through the imposition of statemandated local programs. (*Lucia Mar Unified School Dist.* v. *Honig* (1988) 44 Cal.3d 830, 835-836 [244 Cal.Rptr. 677, 750 P.2d 318].) The state was now required to reimburse local governments for costs associated with these programs.

In 1979, the City and County of San Francisco sought reimbursement for the costs of complying with the elevator fire and earthquake safety regulations. The State Board of Control (Board) approved the claim, adopted "parameters and guidelines," and also adopted "statewide cost estimates" for these regulations. State did not seek review of the Board's decision although authorized to do so by former Revenue and Taxation Code section 2253.5 (Stats. 1978, ch. 794, § 8, p. 2551).

Despite the Board's decision, the Legislature did not appropriate funds for reimbursement, finding the elevator earthquake safety regulations did not impose reimbursable state-mandated costs. (Stats. 1982, ch. 1586, § 10, p. 6268.) The Legislature further stated it could not determine whether the elevator fire safety regulation imposed a reimbursable state-mandated cost and declared the operation of the regulation suspended "until a court determines whether this provision contains a mandate reimbursable under Section 2231 of the Revenue and Taxation Code." (Stats. 1982, ch. 1586, § 11, p. 6268.)

County subsequently filed a claim with the Board for reimbursement of costs already incurred in complying with the fire safety regulation and those anticipated in complying with the earthquake safety provisions. The Board informed County of the Legislature's decision not to provide subvention of funds for costs incurred in association with these OSHA regulations and denied the claim.

In October 1983, County filed its petition for writ of mandate and a complaint for declaratory and injunctive relief, and trial was eventually set for July 1988. In April 1988, State moved for summary judgment, asserting the elevator safety regulations did not meet the definition of "program" recently articulated in *Los Angeles, supra*, 43 Cal.3d 46. In that case, the Supreme Court considered whether local governments were entitled to reimbursement for costs incurred in complying with legislation increasing workers' compensation benefit payments. ([1a]) The court held programs were reimbursable under article XIII B only if they were "programs that carry out the governmental function of providing services to the public, or ***1543** laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Id.* at p. 56.) The court concluded article XIII B "has no application to, and the State need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive." (*Id.* at pp. 57-58, fn. omitted.)

Relying on *Los Angeles*, State asserted the regulations did not constitute a "program" requiring reimbursement for costs incurred because they (1) applied to all elevators, both publicly and privately owned, and (2) did not require County to carry out a governmental function of providing services to the public. County disagreed, urging the *Los Angeles* definition was met and, further, that State was estopped to challenge the Board's earlier finding that the regulations imposed a reimbursable state-mandated cost. The trial court granted State's motion for summary judgment; this appeal followed. We shall affirm.

Discussion

I

([2a]) County asserts principles of administrative collateral estoppel preclude State from challenging the Board's earlier decision finding the elevator safety regulations to be a reimbursable state-mandated program. County errs.

In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 [234 Cal.Rptr. 795] (*Carmel Valley*), the court considered whether costs incurred in purchasing protective clothing and equipment for firefighters as required by new administrative regulations were state-mandated costs entitling the county to reimbursement. The court found the State was precluded from relitigating the issues of state mandate and amount of reimbursement because the Board had previously decided these issues in ruling on the county's

claim and the State by failing to seek judicial review of the Board's decision waived its right to contest the Board's findings. (*Id.* at p. 534.) In reaching this conclusion, the court relied, inter alia, on principles of administrative collateral estoppel, which the court described as follows:

([3]) "Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. In order for the doctrine to apply, the issues in the two proceedings must be the same, the prior ***1544** proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved. (*People v. Sims* (1982) 32 Cal.3d 468, 484 [ ].) [¶] The doctrine was extended in *Sims* to apply to a final adjudication of an administrative agency of statutory creation so as to preclude relitigation of the same issues in a subsequent criminal case. ([4]) Our Supreme Court held that collateral estoppel applies to such prior adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) resolved disputed issues properly before it; and (3) all parties were provided with the opportunity to fully and fairly litigate their claims. (*Id.* at p. 479.)" (*Carmel Valley, supra*, 190 Cal.App.3d at pp. 534-535.)

Although administrative collateral estoppel precluded the relitigation of certain issues, the *Carmel Valley* court noted the *Los Angeles* decision presented a new issue not previously considered by the Board, whether the regulations constitute the type of "program" requiring subvention of funds under article XIII B, section 6. (*Id.* at p. 537.) The court held, "State is not precluded from raising this new issue on appeal. Questions of law decided by an administrative agency invoke the collateral estoppel doctrine only when a determination of conclusiveness will not work an injustice. Likewise the doctrine of waiver is inapplicable if a litigant has no actual or constructive knowledge of his rights. Since the [*Los Angeles*] rule had not been announced at the time of the Board or trial court proceedings herein, the doctrines of waiver and collateral estoppel are inapplicable to State on this particular issue." (*Id.* at p. 537, fn. 10.)

([2b]) The same principle is applicable in the instant case. Assuming arguendo that all of the elements of administrative collateral estoppel are met, the fact remains that the test claim involving the elevator safety regulations was filed with the Board in 1979, eight years before the *Los Angeles* rule was enunciated by our Supreme Court. Nothing in the record supports any assertion that the Board in 1979 considered if this was a program within the meaning of *Los Angeles*. Indeed the Board would have been preternaturally prescient if it had done so. State was free to raise the "program" question in its motion for summary judgment and we turn now to that issue.

II

([5a]) County asserts the *Los Angeles* decision does not apply to this case or, if it does, that the elevator safety regulations are a "program" as defined by *Los Angeles*. Both contentions are without merit. ***1545**

County attempts to distinguish *Los Angeles* from the case at bar by relying on two differences: (1) in *Los Angeles*, the Board ruled against the local governments but here the Board ruled in County's favor; and (2) in *Los Angeles*, the court's ruling was compelled to avoid finding an implied repeal of the state constitution's provisions relating to worker's compensation; and here no constitutional problems are presented. County provides no further analysis of these distinctions and we find them meaningless. ([1b]) *Los Angeles* clearly established a definition of "program" to be used in determining whether reimbursement must be provided under article XIII B, and we are bound to follow that ruling. (*Auto Equity Sales, Inc. v. Superior Court* (1962) 57 Cal.2d 450, 455 [20 Cal.Rptr. 321, 369 P.2d 937].)

As noted, the *Los Angeles* court established two alternative meanings for the term "programs." Programs are reimbursable under article XIII B if they are "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Los Angeles, supra*, 43 Cal.3d at p. 56.)

([5b]) County acknowledges the elevator safety regulations apply to all elevators, not just those which are publicly owned. [4] As these regulations do not impose a "unique requirement" on local governments, they do not meet the second definition of "program" established by *Los Angeles*.

Nor is the first definition of "program" met. County submitted a declaration by deputy county counsel

providing: "It is my opinion that all of the buildings owned or leased by County are used for 'peculiarly governmental functions' or are used by County for purposes mandated by state law .... [¶] It is my opinion, ... that in all buildings owned or leased by County which have elevators, those elevators are strictly necessary for the purposes [just] described. In other words, without those elevators no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings. ... It is my opinion that federal and state laws and court decisions about access for handicapped persons require elevators in all public buildings of more than one story." These thoughts had occurred to counsel only shortly before County's opposition to the summary judgment motion was due to be filed.

County asserts this declaration "proves that all passenger elevators in all county buildings are necessary for the performance of *peculiarly governmental* ***1546** *functions* by County including *duties mandated* on County *by State*." (Italics in original.) Even if we were to treat the submitted declaration as something more than mere opinion, County has missed the point. The regulations at issue do not mandate elevator service; they simply establish safety measures. In determining whether these regulations are a program, the critical question is whether the *mandated program* carries out the governmental function of providing services to the public, not whether the elevators can be used to obtain these services. Providing elevators equipped with fire and earthquake safety features simply is not "a governmental function of providing services to the public." [5]

As the regulations in question do not meet the definition of "program" established by *Los Angeles*, County was not entitled to reimbursement for costs incurred in complying with these provisions and the court properly granted State's motion for summary judgment.

Disposition

The judgment is affirmed. State to recover costs.

Puglia, P. J., and DeCristoforo, J., concurred.

Appellant's petition for review by the Supreme Court was denied January 17, 1990. ***1547**

Footnotes

1 The first portion of County's brief is devoted to arguing a nonissue, i.e., why a separation of powers issue is not pertinent to this appeal. As the trial court granted summary judgment in favor of State, it did not decide how to order reimbursement or provide other relief without impinging on the Legislature's authority. County is right - the separation of powers question is irrelevant and we do not consider it.

2 The regulations in question outline various safety measures such as (1) the securing of machinery and equipment, (2) elevator car enclosures, (3) emergency operations, and (4) the installation of guide rails, supports and fastenings.

3 Revenue and Taxation Code section 2231 was repealed in 1986 (Stats. 1986, ch. 879, § 23, p. 3045) and reenacted as Government Code section 17561 (Stats. 1986, ch. 879, § 6, pp. 3041-3042). The definition of "costs mandated by the state" is now embodied in Government Code section 17514 and provides: "'Costs mandated by the state' means any increased costs which a local agency or school district is required to incur after July 1, 1980, as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

4 An affidavit submitted by State in support of its motion for summary judgment established that 92.1 percent of the elevators subject to these regulations are privately owned, while only 7.9 percent are publicly owned or operated.

5 This case is therefore unlike *Lucia Mar, supra*, 44 Cal.3d 830, in which the court found the education of handicapped children to be a governmental function (44 Cal.3d at p. 835) and *Carmel Valley, supra*, where the court reached a similar conclusion regarding fire protection services. (190 Cal.App.3d at p. 537.)

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43 Cal.3d 46, 729 P.2d 202, 233 Cal.Rptr. 38

COUNTY OF LOS ANGELES
et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et
al., Defendants and Respondents.
CITY OF SONOMA et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et
al., Defendants and Respondents

L.A. No. 32106.
Supreme Court of California
Jan 2, 1987.

SUMMARY

The trial court denied a petition for writ of mandate to compel the State Board of Control to approve reimbursement claims of local government entities, for costs incurred in providing an increased level of service mandated by the state for workers' compensation benefits. The trial court found that Cal. Const., art. XIII B, § 6, requiring reimbursement when the state mandates a new program or a higher level of service, is subject to an implied exception for the rate of inflation. In another action, the trial court, on similar claims, granted partial relief and ordered the board to set aside its ruling denying the claims. The trial court, in this second action, found that reimbursement was not required if the increases in benefits were only cost of living increases not imposing a higher or increased level of service on an existing program. Thus, the second matter was remanded due to insubstantial evidence and legally inadequate findings. (Superior Court of Los Angeles County, Nos. C 424301 and C 464829, Leon Savitch and John L. Cole, Judges.) The Court of Appeal, Second Dist., Div. Five, Nos. B001713 and B003561 affirmed the first action; the second action was reversed and remanded to the State Board of Control for further and adequate findings.

The Supreme Court reversed the judgment of the Court of Appeal, holding that the petitions lacked merit and should have been denied by the trial court without the necessity of further proceedings before the board. The court held that when the voters adopted art. XIII B, § 6, their intent was not to require the state to provide subvention whenever a newly enacted statute results incidentally in some cost to local agencies, but only to require subvention for the expense or increased cost of programs administered locally, and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities. Thus, the court held, reimbursement was not required by art. XIII B, § 6. Finally, the court held that no pro tanto repeal of Cal. Const., art. XIV, § 4 (workers' compensation), was intended or made necessary by the adoption of art. XIII B, § 6. (Opinion by Grodin, J., with Bird, C. J., Broussard, Reynoso, Lucas and Panelli, JJ., concurring. Separate concurring opinion by Mosk, J.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to Local Governments--Costs to Be Reimbursed.
When the voters adopted Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or increased cost of programs administered locally, and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities.

(2)
Statutes § 18--Repeal--Effect--"Increased Level of Service."
The statutory definition of the phrase "increased level of service," within the meaning of Rev. & Tax. Code, § 2207, subd. (a) (programs resulting in increased costs which local agency is required to incur), did not continue after it was specifically repealed, even though the Legislature, in enacting the statute, explained that the definition was declaratory of existing law. It is ordinarily presumed that the Legislature, by deleting an express provision of a statute, intended a substantial change in the law.

[See **Am.Jur.2d,** Statutes, § 384.]

(3)
Constitutional Law § 13--Construction of Constitutions--Language of Enactment.
In construing the meaning of an initiative constitutional provision, a reviewing court's inquiry is focused on what the voters meant when they adopted the provision. To determine this intent, courts must look to the language of the provision itself.

(4)
Constitutional Law § 13--Construction of Constitutions--Language of Enactment--"Program."
The word "program," as used in Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), refers to programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

(5)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to Local Governments--Increases in Workers' Compensation Benefits.
The provisions of Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), have no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive. Although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state- mandated programs or higher levels of service within the meaning of art. XIII B, § 6. Accordingly, the State Board of Control properly denied reimbursement to local governmental entities for costs incurred in providing state-mandated increases in workers' compensation benefits. (Disapproving *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258], to the extent it reached a different conclusion with respect to expenses incurred by local entities as the result of a newly enacted law requiring that all public employees be covered by unemployment insurance.)

[See **Cal.Jur.3d,** State of California, § 78.]

(6)
Constitutional Law § 14--Construction of Constitutions--Reconcilable and Irreconcilable Conflicts.
Controlling principles of construction require that in the absence of irreconcilable conflict among their various parts, constitutional provisions must be harmonized and construed to give effect to all parts.

(7)
Constitutional Law § 14--Construction of Constitutions--Reconcilable and Irreconcilable Conflicts--Pro Tanto Repeal of Constitutional Provision.
The goals of Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), were to protect residents from excessive taxation and government spending, and to preclude a shift of financial responsibility for governmental functions from the state to local agencies. Since these goals can be achieved in the absence of state subvention for the expense of increases in workers' compensation benefit levels for local agency employees, the adoption of art. XIII B, § 6, did not effect a pro tanto repeal of Cal. Const., art. XIV, § 4, which gives the Legislature plenary power over workers' compensation.

COUNSEL
De Witt W. Clinton, County Counsel, Paula A. Snyder, Senior Deputy County Counsel, Edward G. Pozorski, Deputy County Counsel, John W. Witt, City Attorney, Kenneth K. Y. So, Deputy City Attorney, William D. Ross, Diana P. Scott, Ross & Scott and Rogers & Wells for Plaintiffs and Appellants.
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Clare Bronowski as Amici Curiae on behalf of Defendants and Respondents.

GRODIN, J.

We are asked in this proceeding to determine whether legislation enacted in 1980 and 1982 increasing certain workers' compensation benefit payments is subject to the command of article XIII B of the California Constitution that local government costs mandated by the state must be funded by the state. The County of Los Angeles and the City of Sonoma sought review by this court of a decision of the Court of Appeal which held that state-mandated increases in workers' compensation benefits that do not exceed the rise in the cost of living are not costs which must be borne by the state under article XIII B, an initiative constitutional provision, and legislative implementing statutes.

Although we agree that the State Board of Control properly denied plaintiffs' claims, our conclusion rests on grounds other than those relied upon by the Court of Appeal, and requires that its judgment be reversed. ([1]) We conclude that when the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or ***50** increased cost of programs administered locally and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities. In using the word "programs" they had in mind the commonly understood meaning of the term, programs which carry out the governmental function of providing services to the public. Reimbursement for the cost or increased cost of providing workers' compensation benefits to employees of local agencies is not, therefore, required by section 6.

We recognize also the potential conflict between article XIII B and the grant of plenary power over workers' compensation bestowed upon the Legislature by section 4 of article XIV, but in accord with established rules of construction our construction of article XIII B, section 6, harmonizes these constitutional provisions.

I

On November 6, 1979, the voters approved an initiative measure which added article XIII B to the California Constitution. That article imposed spending limits on the state and local governments and provided in section 6 (hereafter section 6): "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." No definition of the phrase "higher level of service" was included in article XIII B, and the ballot materials did not explain its meaning. [1]

The genesis of this action was the enactment in 1980 and 1982, after article XIII B had been adopted, of laws increasing the amounts which ***51** employers, including local governments, must pay in workers' compensation benefits to injured employees and families of deceased employees.

The first of these statutes, Assembly, Bill No. 2750 (Stats. 1980, ch. 1042, p. 3328), amended several sections of the Labor Code related to workers' compensation. The amendments of Labor Code sections 4453, 4453.1 and 4460 increased the maximum weekly wage upon which temporary and permanent disability indemnity is computed from $231 per week to $262.50 per week. The amendment of section 4702 of the Labor Code increased certain death benefits from $55,000 to $75,000. No appropriation for increased state-mandated costs was made in this legislation. [2]

Test claims seeking reimbursement for the increased expenditure mandated by these changes were filed with the State Board of Control in 1981 by the County of San Bernardino and the City of Los Angeles. The board rejected the claims, after hearing, stating that the increased maximum workers' compensation benefit levels did not change the terms or conditions under which benefits were to be awarded, and therefore did not, by increasing the dollar amount of the benefits, create an increased level

of service. The first of these consolidated actions was then filed by the County of Los Angeles, the County of San Bernardino, and the City of San Diego, seeking a writ of mandate to compel the board to approve the reimbursement claims for costs incurred in providing an increased level of service mandated by the state pursuant to Revenue and Taxation Code section 2207. [3] They also sought a declaration that because the State of California and the board were obliged by article XIII B to reimburse them, they were not obligated to pay the increased benefits until the state provided reimbursement.

The superior court denied relief in that action. The court recognized that although increased benefits reflecting cost of living raises were not expressly ***52** excepted from the requirement of state reimbursement in section 6 the intent of article XIII B to limit governmental expenditures to the prior year's level allowed local governments to make adjustment for changes in the cost of living, by increasing their own appropriations. Because the Assembly Bill No. 2750 changes did not exceed cost of living changes, they did not, in the view of the trial court, create an "increased level of service " in the existing workers' compensation program.

The second piece of legislation (Assem. Bill No. 684), enacted in 1982 (Stats. 1982, ch. 922. p. 3363), again changed the benefit levels for workers' compensation by increasing the maximum weekly wage upon which benefits were to be computed, and made other changes among which were: The bill increased minimum weekly earnings for temporary and permanent total disability from $73.50 to $168, and the maximum from $262.50 to $336. For permanent partial disability the weekly wage was raised from a minimum of $45 to $105, and from a maximum of $105 to $210, in each case for injuries occurring on or after January 1, 1984. (Lab. Code, § 4453.) A $10,000 limit on additional compensation for injuries resulting from serious and willful employer misconduct was removed (Lab. Code, § 4553), and the maximum death benefit was raised from $75,000 to $85,000 for deaths in 1983, and to $95,000 for deaths on or after January 1, 1984. (Lab. Code, § 4702.)

Again the statute included no appropriation and this time the statute expressly acknowledged that the omission was made "[n]otwithstanding section 6 of Article XIIIB of the California Constitution and section 2231 ... of the Revenue and Taxation Code." (Stats. 1982, ch. 922, § 17, p. 3372.) [4]

Once again test claims were presented to the State Board of Control, this time by the City of Sonoma, the County of Los Angeles, and the City of San Diego. Again the claims were denied on grounds that the statute made no change in the terms and conditions under which workers' compensation benefits were to be awarded, and the increased costs incurred as a result of higher benefit levels did not create an increased level of service as defined in Revenue and Taxation Code section 2207, subdivision (a).

The three claimants then filed the second action asking that the board be compelled by writ of mandate to approve the claims and the state to pay them, and that chapter 922 be declared unconstitutional because it was not adopted in conformity with requirements of the Revenue and Taxation Code or ***53** section 6. The trial court granted partial relief and ordered the board to set aside its ruling. The court held that the board's decision was not supported by substantial evidence and legally adequate findings on the presence of a state-mandated cost. The basis for this ruling was the failure of the board to make adequate findings on the possible impact of changes in the burden of proof in some workers' compensation proceedings (Lab. Code, § 3202.5); a limitation on an injured worker's right to sue his employer under the "dual capacity" exception to the exclusive remedy doctrine (Lab. Code, §§ 3601-3602); and changes in death and disability benefits and in liability in serious and wilful misconduct cases. (Lab. Code, § 4551.)

The court also held: "[T]he changes made by chapter 922, Statutes of 1982 may be excluded from state-mandated costs if that change effects a cost of living increase which does not impose a higher or increased level of service on an existing program." The City of Sonoma, the County of Los Angeles, and the City of San Diego appeal from this latter portion of the judgment only.

II

The Court of Appeal consolidated the appeals. The court identified the dispositive issue as whether legislatively mandated increases in workers' compensation benefits constitute a "higher level of service" within the meaning of section 6, or are an "increased level of service" [5] described

in subdivision (a) of Revenue and Taxation Code section 2207. The parties did not question the proposition that higher benefit payments might constitute a higher level of "service." The dispute centered on whether higher benefit payments which do not exceed increases in the cost of living constitute a higher level of service. Appellants maintained that the reimbursement requirement of section 6 is absolute and permits no implied or judicially created exception for increased costs that do not exceed the inflation rate. The Court of Appeal addressed the problem as one of defining "increased level of service."

The court rejected appellants' argument that a definition of "increased level of service" that once had been included in section 2231, subdivision (e) of the Revenue and Taxation Code should be applied. That definition brought any law that imposed "additional costs" within the scope of "increased level of service." The court concluded that the repeal of section 2231 in 1975 (Stats. 1975, ch. 486, § 7, pp. 999-1000) and the failure of the Legislature by statute or the electorate in article XIII B to readopt the ***54** definition must be treated as reflecting an intent to change the law. (*Eu v. Chacon* (1976) 16 Cal.3d 465, 470 [128 Cal.Rptr. 1, 546 P.2d 289].) [6] On that basis the court concluded that increased costs were no longer tantamount to an increased level of service.

The court nonetheless assumed that an increase in costs mandated by the Legislature did constitute an increased level of service if the increase exceeds that in the cost of living. The judgment in the second, or "Sonoma " case was affirmed. The judgment in the first, or "Los Angeles" case, however, was reversed and the matter "remanded" to the board for more adequate findings, with directions. [7]

III

The Court of Appeal did not articulate the basis for its conclusion that costs in excess of the increased cost of living do constitute a reimbursable increased level of service within the meaning of section 6. Our task in ascertaining the meaning of the phrase is aided somewhat by one explanatory reference to this part of section 6 in the ballot materials.

A statutory requirement of state reimbursement was in effect when section 6 was adopted. That provision used the same "increased level of service " phraseology but it also failed to include a definition of "increased level of service," providing only: "Costs mandated by the state' means any increased costs which a local agency is required to incur as a result of the following: [¶] (a) Any law ... which mandates a new program or an increased level of service of an existing program." (Rev. & Tax. Code § 2207.) As noted, however, the definition of that term which had been ***55** included in Revenue and Taxation Code section 2164.3 as part of the Property Tax Relief Act of 1972 (Stats. 1972, ch. 1406, § 14.7, p. 2961), had been repealed in 1975 when Revenue and Taxation Code section 2231, which had replaced section 2164.3 in 1973, was repealed and a new section 2231 enacted. (Stats. 1975. ch. 486, §§ 6 & 7, p. 999.) [8] Prior to repeal, Revenue and Taxation Code section 2164.3, and later section 2231, after providing in subdivision (a) for state reimbursement, explained in subdivision (e) that " "Increased level of service' means any requirement mandated by state law or executive regulation ... which makes necessary expanded or additional costs to a county, city and county, city, or special district." (Stats. 1972, ch. 1406, § 14.7, p. 2963.)

([2]) Appellants contend that despite its repeal, the definition is still valid, relying on the fact that the Legislature, in enacting section 2207, explained that the provision was "declaratory of existing law." (Stats. 1975, ch. 486, § 18.6, p. 1006.) We concur with the Court of Appeal in rejecting this argument. "[I]t is ordinarily to be presumed that the Legislature by deleting an express provision of a statute intended a substantial change in the law." (*Lake Forest Community Assn. v. County of Orange* (1978) 86 Cal.App.3d 394, 402 [150 Cal.Rptr. 286]; see also *Eu* v. *Chacon, supra*, 16 Cal.3d 465, 470.) Here, the revision was not minor: a whole subdivision was deleted. As the Court of Appeal noted, "A change must have been intended; otherwise deletion of the preexisting definition makes no sense."

Acceptance of appellants' argument leads to an unreasonable interpretation of section 2207. If the Legislature had intended to continue to equate "increased level of service" with "additional costs," then the provision would be circular: "costs mandated by the state" are defined as "increased costs" due to an "increased level of service," which, in turn, would be defined as "additional costs." We decline to accept such an interpretation. Under the repealed provision, "additional costs" may have been deemed tantamount to an "increased level of service," but not under the post-1975 statutory scheme. Since that definition has been repealed, an act of which the drafters

of section 6 and the electorate are presumed to have been ***56** aware, we may not conclude that an intent existed to incorporate the repealed definition into section 6.

([3]) In construing the meaning of the constitutional provision, our inquiry is not focussed on what the Legislature intended in adopting the former statutory reimbursement scheme, but rather on what the voters meant when they adopted article XIII B in 1979. To determine this intent, we must look to the language of the provision itself. (*ITT World Communications, Inc. v. City and County of San Francisco* (1985) 37 Cal.3d 859, 866 [210 Cal.Rptr. 226, 693 P.2d 811].) In section 6, the electorate commands that the state reimburse local agencies for the cost of any "new program or higher level of service." Because workers' compensation is not a new program, the parties have focussed on whether providing higher benefit payments constitutes provision of a higher level of service. As we have observed, however, the former statutory definition of that term has been incorporated into neither section 6 nor the current statutory reimbursement scheme.

([4]) Looking at the language of section 6 then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing "programs." But the term "program" itself is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term - programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

The concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. In their ballot arguments, the proponents of article XIII B explained section 6 to the voters: "Additionally, this measure: (1) Will not allow the state government to *force programs* on local governments without the state paying for them." (Ballot Pamp., Proposed Amend. to Cal. Const. with arguments to voters, Spec. Statewide Elec. (Nov. 6, 1979) p. 18. Italics added.) In this context the phrase "to force programs on local governments" confirms that the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not ***57** for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not passed by the Legislature to "force" programs on localities.

The language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. We believe that if the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated that the word "program" was being used in such a unique fashion. (Cf. *Fuentes v. Workers' Comp. Appeals Bd.* (1976) 16 Cal.3d 1, 7 [128 Cal.Rptr. 673, 547 P.2d 449]; *Big Sur Properties v. Mott* (1976) 63 Cal.App.3d 99, 105 [132 Cal.Rptr. 835].) Nothing in the history of article XIII B that we have discovered, or that has been called to our attention by the parties, suggests that the electorate had in mind either this construction or the additional indirect, but substantial impact it would have on the legislative process.

Were section 6 construed to require state subvention for the incidental cost to local governments of general laws, the result would be far-reaching indeed. Although such laws may be passed by simple majority vote of each house of the Legislature (art. IV, § 8, subd. (b)), the revenue measures necessary to make them effective may not. A bill which will impose costs subject to subvention of local agencies must be accompanied by a revenue measure providing the subvention required by article XIII B. (Rev. & Tax. Code, §§ 2255, subd. (c).) Revenue bills must be passed by two-thirds vote of each house of the Legislature. (Art. IV, § 12, subd. (d).) Thus, were we to construe section 6 as applicable to general legislation whenever it might have an incidental effect on local agency costs, such legislation could become effective only if passed by a supermajority vote.[9] Certainly no such intent is reflected in the language or history of article XIII B or section 6.

([5]) We conclude therefore that section 6 has no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation ***58** benefits that employees of private individuals or organizations receive.[10] Workers' compensation is not a program administered by local agencies to provide service to the public. Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers. In no sense can employers, public or private, be considered to be administrators of a program of workers' compensation or to be providing services incidental to administration of the program. Workers' compensation is administered by the state through the Division of Industrial Accidents and the Workers' Compensation Appeals Board. (See Lab. Code, § 3201 et seq.) Therefore, although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state-mandated programs or higher levels of service within the meaning of section 6.

IV

([6]) Our construction of section 6 is further supported by the fact that it comports with controlling principles of construction which "require that in the absence of irreconcilable conflict among their various parts, [constitutional provisions] must be harmonized and construed to give effect to all parts. (*Clean Air Constituency* v. *California State Air Resources Bd.* (1974) 1 Cal.3d 801, 813-814 [114 Cal.Rptr. 577, 523 P.2d 617]; *Serrano v. Priest* (1971) 5 Cal.3d 584, 596 [96 Cal.Rptr. 601, 487 P.2d 1241, 41 A.L.R.3d 1187]; *Select Base Materials v. Board of Equal.* (1959) 51 Cal.2d 640, 645 [335 P.2d 672].)" (*Legislature* v. *Deukmejian* (1983) 34 Cal.3d 658, 676 [194 Cal.Rptr. 781, 669 P.2d 17].)

Our concern over potential conflict arises because article XIV, section 4,[11] gives the Legislature "plenary power, unlimited by any provision of ***59** this Constitution" over workers' compensation. Although seemingly unrelated to workers' compensation, section 6, as we have shown, would have an indirect, but substantial impact on the ability of the Legislature to make future changes in the existing workers' compensation scheme. Any changes in the system which would increase benefit levels, provide new services, or extend current service might also increase local agencies' costs. Therefore, even though workers' compensation is a program which is intended to provide benefits to all injured or deceased employees and their families, because the change might have some incidental impact on local government costs, the change could be made only if it commanded a supermajority vote of two-thirds of the members of each house of the Legislature. The potential conflict between section 6 and the plenary power over workers' compensation granted to the Legislature by article XIV, section 4 is apparent.

The County of Los Angeles, while recognizing the impact of section 6 on the Legislature's power over workers' compensation, argues that the "plenary power" granted by article XIV, section 4, is power over the substance of workers' compensation legislation, and that this power would be unaffected by article XIII B if the latter is construed to compel reimbursement. The subvention requirement, it is argued, is analogous to other procedural ***60** limitations on the Legislature, such as the "single subject rule" (art. IV, § 9), as to which article XIV, section 4, has no application. We do not agree. A constitutional requirement that legislation either exclude employees of local governmental agencies or be adopted by a supermajority vote would do more than simply establish a format or procedure by which legislation is to be enacted. It would place workers' compensation legislation in a special classification of substantive legislation and thereby curtail the power of a majority to enact substantive changes by any procedural means. If section 6 were applicable, therefore, article XIII B would restrict the power of the Legislature over workers' compensation.

The City of Sonoma concedes that so construed article XIII B *would* restrict the plenary power of the Legislature, and reasons that the provision therefore either effected a pro tanto repeal of article XIV, section 4, or must be accepted as a limitation on the power of the Legislature. We need not accept that conclusion, however, because our construction of section 6 permits the constitutional provisions to be reconciled.

Construing a recently enacted constitutional provision such as section 6 to avoid conflict with, and thus pro tanto repeal of, an earlier provision is also consistent

with and reflects the principle applied by this court in *Hustedt v. Workers' Comp. Appeals Bd.* (1981) 30 Cal.3d 329 [178 Cal.Rptr. 801, 636 P.2d 1139]. There, by coincidence, article XIV, section 4, was the later provision. A statute, enacted pursuant to the plenary power of the Legislature over workers' compensation, gave the Workers' Compensation Appeals Board authority to discipline attorneys who appeared before it. If construed to include a transfer of the authority to discipline attorneys from the Supreme Court to the Legislature, or to delegate that power to the board, article XIV, section 4, would have conflicted with the constitutional power of this court over attorney discipline and might have violated the separation of powers doctrine. (Art. III, § 3.) The court was thus called upon to determine whether the adoption of article XIV, section 4, granting the Legislature plenary power over workers' compensation effected a pro tanto repeal of the preexisting, exclusive jurisdiction of the Supreme Court over attorneys.

We concluded that there had been no pro tanto repeal because article XIV, section 4, did not give the Legislature the authority to enact the statute. Article XIV, section 4, did not expressly give the Legislature power over attorney discipline, and that power was not integral to or necessary to the establishment of a complete system of workers' compensation. In those circumstances the presumption against implied repeal controlled. "It is well established that the adoption of article XIV, section 4 'effected a repeal *pro tanto*' of any state constitutional provisions which conflicted with that ***61** amendment. (*Subsequent Etc. Fund. v. Ind. Acc. Com.* (1952) 39 Cal.2d 83, 88 [244 P.2d 889]; *Western Indemnity Co.* v. *Pillsbury* (1915) 170 Cal. 686, 695, [151 P. 398].) A *pro tanto* repeal of conflicting state constitutional provisions removes 'insofar as necessary' any restrictions which would prohibit the realization of the objectives of the new article. (*Methodist Hosp. of Sacramento* v. *Saylor* (1971) 5 Cal.3d 685, 691-692 [97 Cal.Rptr. 1, 488 P.2d 161]; cf. *City and County of San Francisco v. Workers' Comp. Appeals Bd.* (1978) 22 Cal.3d 103, 115-117 [148 Cal.Rptr. 626, 583 P.2d 151].) Thus the question becomes whether the board must have the power to discipline attorneys if the objectives of article XIV, section 4 are to be effectuated. In other words, does the achievement of those objectives compel the modification of a power - the disciplining of attorneys - that otherwise rests exclusively with this court?" (*Hustedt v. Workers' Comp. Appeals Bd., supra*, 30 Cal.3d 329, 343.) We concluded that the ability to discipline attorneys appearing before it was not necessary to the expeditious resolution of workers' claims or the efficient administration of the agency. Thus, the absence of disciplinary power over attorneys would not preclude the board from achieving the objectives of article XIV, section 4, and no pro tanto repeal need be found.

([7]) A similar analysis leads to the conclusion here that no pro tanto repeal of article XIV, section 4, was intended or made necessary here by the adoption of section 6. The goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending. (*Huntington Park Redevelopment Agency* v. *Martin* (1985) 38 Cal.3d 100, 109-110 [211 Cal.Rptr. 133, 695 P.2d 220].) Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs. Neither of these goals is frustrated by requiring local agencies to provide the same protections to their employees as do private employers. Bearing the costs of salaries, unemployment insurance, and workers' compensation coverage - costs which all employers must bear - neither threatens excessive taxation or governmental spending, nor shifts from the state to a local agency the expense of providing governmental services.

Therefore, since the objectives of article XIII B and section 6 can be achieved in the absence of state subvention for the expense of increases in workers' compensation benefit levels for local agency employees, section 6 did not effect a pro tanto repeal of the Legislature's otherwise plenary power over workers' compensation, a power that does not contemplate that the Legislature rather than the employer must fund the cost or increases in ***62** benefits paid to employees of local agencies, or that a statute affecting those benefits must garner a supermajority vote.

Because we conclude that section 6 has no application to legislation that is applicable to employees generally, whether public or private, and affects local agencies only incidentally as employers, we need not reach the question that was the focus of the decision of the Court of Appeal - whether the state must reimburse localities for state-mandated cost increases which merely reflect adjustments for cost-of-living in existing programs.

V

It follows from our conclusions above, that in each of these cases the plaintiffs' reimbursement claims were properly denied by the State Board of Control. Their petitions for writs of mandate seeking to compel the board to approve the claims lacked merit and should have been denied by the superior court without the necessity of further proceedings before the board.

In B001713, the Los Angeles case, the Court of Appeal reversed the judgment of the superior court denying the petition. In the B003561, the Sonoma case, the superior court granted partial relief, ordering further proceedings before the board, and the Court of Appeal affirmed that judgment.

The judgment of the Court of Appeal is reversed. Each side shall bear its own costs.

Bird, C. J., Broussard, J., Reynoso, J., Lucas, J., and Panelli, J., concurred.

MOSK, J.

I concur in the result reached by the majority, but I prefer the rationale of the Court of Appeal, i.e., that neither article XIII B, section 6, of the Constitution nor Revenue and Taxation Code sections 2207 and 2231 require state subvention for increased workers' compensation benefits provided by chapter 1042, Statutes of 1980, and chapter 922, Statutes of 1982, but only if the increases do not exceed applicable cost-of-living adjustments because such payments do not result in an increased level of service.

Under the majority theory, the state can order unlimited financial burdens on local units of government without providing the funds to meet those burdens. This may have serious implications in the future, and does violence to the requirement of section 2231, subdivision (a), that the state reimburse local government for "all costs mandated by the state."

In this instance it is clear from legislative history that the Legislature did not intend to mandate additional burdens, but merely to provide a cost-of-living ***63** adjustment. I agree with the Court of Appeal that this was permissible.

Appellants' petition for a rehearing was denied February 26, 1987. ***64**

Footnotes

1 The analysis by the Legislative Analyst advised that the state would be required to "reimburse local governments for the cost of complying with 'state mandates.' 'State mandates' are requirements imposed on local governments by legislation or executive orders." Elsewhere the analysis repeats: "[T]he initiative would establish a requirement that the state provide funds to reimburse local agencies for the cost of complying with state mandates. ...
The one ballot argument which made reference to section 6, referred only to the "new program" provision, stating, "Additionally, this measure [¶] (1) will not allow the state government to force programs on local governments without the state paying for them."

2 The bill was approved by the Governor and filed with the Secretary of State on September 22, 1980. Prior to this, the Assembly gave unanimous consent to a request by the bill's author that his letter to the Speaker stating the intent of the Legislation be printed in the Assembly Journal. The letter stated: (1) that the Assembly Ways and Means Committee had recommended approval without appropriation on grounds that the increases were a result of changes in the cost of living that were not reimbursable under either Revenue and Taxation Code section 2231, or article XIII B; (2) the Senate Finance Committee had rejected a motion to add an appropriation and had approved a motion to concur in amendments of the Conference Committee deleting any appropriation.
Legislative history confirms only that the final version of Assembly Bill No. 2750, as amended in the Assembly on April 16, 1986, contained no appropriation. As introduced on March 4, 1980, with a higher minimum salary of $510 on which to base benefits, an unspecified appropriation was included.

3 The superior court consolidated another action by the County of Butte, Novato Fire Protection District, and the Galt Unified School District with that action. Neither those plaintiffs nor the County of San Bernardino are parties to the appeal.

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4 The same section ”recognized,“ however, that a local agency ”may pursue any remedies to obtain reimbursement available to it“ under the statutes governing reimbursement for state-mandated costs in chapter 3 of the Revenue and Taxation Code, commencing with section 2201.

5 The court concluded that there was no legal or semantic difference in the meaning of the terms and considered the intent or purpose of the two provisions to be identical.

6 The Court of Appeal also considered the expression of legislative intent reflected in the letter by the author of Assembly Bill No. 2750 (see fn. 2, *ante*). While consideration of that expression of intent may have been proper in construing Assembly Bill No. 2750, we question its relevance to the proper construction of either section 6, adopted by the electorate in the prior year, or of Revenue and Taxation Code section 2207, subdivision (a) enacted in 1975. (Cf. *California Employment Stabilization Co.* v. *Payne* (1947) 31 Cal.2d 210, 213-214 [187 P.2d 702].) There is no assurance that the Assembly understood that its approval of printing a statement of intent as to the later bill was also to be read as a statement of intent regarding the earlier statute, and it was not relevant to the intent of the electorate in adopting section 6.

The Court of Appeal also recognized that the history of Assembly Bill No. 2750 and Statutes 1982, chapter 922, which demonstrated the clear intent of the Legislature to omit any appropriation for reimbursement of local government expenditures to pay the higher benefits precluded reliance on reimbursement provisions included in benefit-increase bills passed in earlier years. (See e.g., Stats. 1973, chs. 1021 and 1023.)

7 We infer that the intent of the Court of Appeal was to reverse the order denying the petition for writ of mandate and to order the superior court to grant the petition and remand the matter to the board with directions to set aside its order and reconsider the claim after making the additional findings. (See Code Civ. Proc. § 1094.5, subd. (f).)

8 Pursuant to the 1972 and successor 1973 property tax relief statutes the Legislature had included appropriations in measures which, in the opinion of the Legislature, mandated new programs or increased levels of service in existing programs (see, e.g., Stats. 1973, ch. 1021, § 4, p. 2026; ch. 1022, § 2, p. 2027; Stats. 1976, ch. 1017, § 9, p. 4597) and reimbursement claims filed with the State Board of Control pursuant to Revenue and Taxation Code sections 2218-2218.54 had been honored. When the Legislature fails to include such appropriations there is no judicially enforceable remedy for the statutory violation notwithstanding the command of Revenue and Taxation Code section 2231, subdivision (a) that “[t]he state shall reimburse each local agency for all 'costs mandated by the state,' as defined in Section 2207” and the additional command of subdivision (b) that any statute imposing such costs “provide an appropriation therefor.” (*County of Orange v. Flournoy* (1974) 42 Cal.App.3d 908, 913 [117 Cal.Rptr. 224].)

9 Whether a constitutional provision which requires a supermajority vote to enact substantive legislation, as opposed to funding the program, may be validly enacted as a Constitutional amendment rather than through revision of the Constitution is an open question. (See *Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 228 [149 Cal.Rptr. 239, 583 P.2d 1281].)

10 The Court of Appeal reached a different conclusion in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258], with respect to a newly enacted law requiring that all public employees be covered by unemployment insurance. Approaching the question as to whether the expense was a “state mandated cost,” rather than as whether the provision of an employee benefit was a “program or service” within the meaning of the Constitution, the court concluded that reimbursement was required. To the extent that this decision is inconsistent with our conclusion here, it is disapproved.

11 Section 4: “The Legislature is hereby *expressly vested with plenary power, unlimited by any provision of this Constitution*, to create, and enforce a complete system of workers' compensation, by appropriate legislation, and in that behalf to create and enforce a liability on the part of any or all persons to compensate any or all of their workers for injury or disability, and their dependents for death incurred or sustained by the said workers in the course of their employment, irrespective of the fault of any party. A complete system of workers' compensation includes adequate provisions for the comfort, health and safety and general welfare of any and all workers and those dependent upon them for support to the extent of relieving from the consequences of any injury or death incurred or sustained by workers in the course of their employment, irrespective of the fault of any party; also full provision for securing safety in places of employment; full provision for such medical, surgical, hospital and other remedial treatment as is requisite to cure and relieve from the effects of such injury; full provision for adequate insurance coverage against liability to pay or furnish compensation; full provision for regulating such insurance coverage in all its aspects, including the establishment and management of a State compensation insurance fund; full provision for otherwise securing the payment of compensation and full provision for vesting power, authority and jurisdiction in an administrative body with all the requisite governmental functions to determine any dispute or matter arising under such legislation, to the end that the administration of such legislation shall accomplish substantial justice in all cases expeditiously, inexpensively, and without encumbrance of any character; all

of which matters are expressly declared to be the social public policy of this State, binding upon all departments of the State government.

"The Legislature is vested with plenary powers, to provide for the settlement of any disputes arising under such legislation by arbitration, or by an industrial accident commission, by the courts, or by either, any, or all of these agencies, either separately or in combination, and may fix and control the method and manner of trial of any such dispute, the rules of evidence and the manner of review of decisions rendered by the tribunal or tribunals designated by it; provided, that all decisions of any such tribunal shall be subject to review by the appellate courts of this State. The Legislature may combine in one statute all the provisions for a complete system of workers' compensation, as herein defined.

"The Legislature shall have power to provide for the payment of an award to the state in the case of the death, arising out of and in the course of the employment, of an employee without dependents, and such awards may be used for the payment of extra compensation for subsequent injuries beyond the liability of a single employer for awards to employees of the employer.

"Nothing contained herein shall be taken or construed to impair or render ineffectual in any measure the creation and existence of the industrial accident commission of this State or the State compensation insurance fund, the creation and existence of which, with all the functions vested in them, are hereby ratified and confirmed." (Italics added.)

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149 Cal. 69, 84 P. 760

MARTIAL DAVOUST, Appellant,
v.
CITY OF ALAMEDA, Respondent.

Supreme Court of California.
S. F. No. 3390.
March 30, 1906.

MUNICIPAL CORPORATIONS—LIABILITY FOR NEGLIGENCE.
Although municipal corporations are not liable for the negligence of their officers or servants when acting in their governmental, political, or public capacity, in the absence of a statute permitting it, yet, when the injury arises from the exercise of mere proprietary and private rights, they are liable for negligence, like individuals or private corporations.

ID.—NEGLIGENT OPERATION OF ELECTRIC-LIGHT PLANT—LIABILITY OF CITY FOR DEATH.
A city engaged in operating an electric-light plant owned by it for the purpose of lighting the city, and furnishing electric light to its inhabitants for domestic use, is liable for the death of a person caused by its negligent operation.

ID.—AUTHORITY TO BOARD OF TRUSTEES.
It is immaterial to the liability of the city for the negligent operation of such plant that the authority to maintain it was given to the board of trustees of the city, and not in terms to the city.

ID.—PROOF OF NEGLIGENCE—DEATH FROM LIVE WIRE—WAY OVER VACANT LOT—LICENSE.
It appearing that the death was caused by a live wire negligently allowed by the city to remain upon a beaten path four feet wide over a vacant lot, which had for many years been used by residents of the neighborhood in going from their homes to a railroad station, the deceased must be deemed a licensee in crossing such path, and not a trespasser; and that the death was due to the negligence of the city is sufficiently proved.

APPEAL from a judgment of the Superior Court of Alameda County. W. E. Greene, Judge.

The facts are stated in the opinion of the court.

***69** J. C. Campbell, W. H. Metson, Reed & Nusbaumer, J. R. Glascock, and J. M. Poston, for Appellant.
M. W. Simpson, and Chapman & Clift, for Respondent.

***70** MCFARLAND, J.

This action is to recover damages for the death of plaintiff's wife alleged to have been caused by the negligence of defendant, the city of Alameda, in operating an electric-lighting plant owned by defendant, and used for the purpose of lighting said city and furnishing light to its inhabitants for domestic purposes. The trial court granted a nonsuit and gave judgment for defendant, and from this judgment plaintiff appeals. There is a bill of exceptions which presents the evidence and the rulings of the court.

It does not appear upon what ground the nonsuit was granted; but the main point argued by counsel for respondent is that because the defendant is a municipal corporation it is not liable to pay any damages, even though the death of plaintiff's wife was caused by the negligent operation of the electric plant. And in support of this contention respondent relies on *Winbigler v. City of Los Angeles,* 45 Cal. 36; *Denning v. State,* 123 Cal. 316, [55 Pac. 1000]; *Chope v. City of Eureka,* 78 Cal. 588, [21 Pac. Rep. 364, 12 Am. St. Rep. 113], and the cases there cited. These cases undoubtedly establish the rule in this state, although it has been held differently in some other jurisdictions, that a municipal corporation, when exercising governmental functions as an agent of the sovereign power, is not liable for damages caused by the negligence of its employees, unless it is expressly so made liable by statute. But this rule applies to a municipal corporation only when acting in its governmental, political, or public capacity as an instrumentality intrusted by the state with the subordinate control of some public affair. Such a corporation, however, has a double character—governmental, and also proprietary and private—and when acting in the latter capacity its liabilities arising out of either contract or

tort are the same as those of natural persons or private corporations. And while we have been referred to no case in this state where the proposition last stated was directly involved, yet in all the cases from this state cited by respondent the acts complained of were connected with the exercise of what has uniformly been held to be governmental functions, such as maintenance of public streets and roads, protection from fire, etc. However, the distinction has been frequently recognized and stated in the California decisions. In *Touchard v. Touchard,* 5 Cal. 307, the court say: "A corporation, both ***71** by the civil and common law, is a person, an artificial person; and although a municipal corporation has delegated to it certain powers of government, it is only in reference to those delegated powers that it will be regarded as a government. In reference to all other of its transactions, such as affect its ownership of property in buying, selling, or granting, and in reference to all matters of contract, it must be looked upon and treated as a private person, and its contracts construed in the same manner and with like effect as those of natural persons." In *San Francisco Gas Co. v. San Francisco,* 9 Cal. 469, Justice Field says: "The distinction alluded to refers to the double character of a municipal corporation; its public and political character in which it exercises subordinate and legislative powers, and its private character in which it exercises the powers of an individual or private corporation." In *Ukiah v. Ukiah W. and I Co.,* 142 Cal. 179, [75 Pac. 775, 100 Am. St. Rep. 107], this court says: "The distinction between the powers conferred on municipal corporations for public purposes and for the general public good, and those conferred for private corporate purposes, is clearly marked by the decisions." (Citing cases.) In *Denning v. State,* 123 Cal. 316, [55 Pac. Rep. 1000], it was held that the state was not liable for injury caused plaintiff by negligence of a board of harbor commissioners, because the latter were exercising purely governmental powers; but the distinction above mentioned was clearly stated. The court said, among other things, that the plaintiff, when injured, was employed in a distinct branch of the service,—"viz. the protection against or extinguishment of fires, which, even in the case of municipal corporations, is uniformly held to be the exercise of a purely governmental function; and there is certainly as strong ground for distinguishing between the different functions of the board as there can be for distinguishing between the different functions of a municipal corporation, in the exercise of some of which the corporation is liable for negligence, while in others it is not." (See, also, *Holland v. San Francisco*, 7 Cal. 361; *Argenti v. San Francisco*, 16 Cal. 255; *Brown v. Board of Education,* 103 Cal. 531, [37 Pac. 503].)

In other jurisdictions the rule that municipal corporations are liable like individuals and private corporations when the injury arises out of their exercise of mere proprietary and ***72** private rights has been extremely and frequently decided. Indeed, the rule has become text-book law. In Dillon on Municipal Corporations (sec. 66) the author, having said that a municipal corporation "possesses a double character; one governmental, legislative, or public; the other, in a sense, proprietary or private," proceeds as follows: "In its governmental or public character, the corporation is made, by the state, one of its instruments, or the local depositary of certain limited and prescribed political powers, to be exercised for the public good on behalf of the state rather than for itself; … but in its proprietary or private character, the theory is that the powers are supposed not to be conferred, primarily or chiefly, from considerations connected with the government of the state at large, but for the private advantage of the compact community which is incorporated as a distinct legal personality or corporate individual." There are numerous authorities to the general point of the distinction between the governmental and the proprietary character of municipal corporations, but it will be sufficient here, on the general question, to refer to the opinion of the supreme court of Oregon in the case of *Esberg Cigar Co. v. Portland,* 34 Or. 282, [55 Pac. 961, 75 Am. St. Rep. 651], where the authorities are nearly all cited. (See, also, *South Carolina v. United States,* 199 U. S. 437, [26 Sup. Ct. 110, 116].)

And that the respondent, in maintaining and operating its electric plant, was exercising, not its governmental functions, but its proprietary and private rights, is entirely clear. There is obviously no distinction, so far as the law on the subject is concerned, between an electric plant for furnishing light, which is comparatively a new thing, and a gas plant maintained for the same purpose; and it has been directly held that a municipal corporation operating a gas plant is liable for injury caused by its careless management. In Dillon on Municipal Corporations (sec. 954) it is said: "A municipal corporation owning waterworks or gasworks which supply private consumers on the payment of tolls is liable for the negligence of its agents and servants the same as like private proprietors would be"; and ample authority is cited sustaining the text. In *Western S. F. Society v. Philadelphia,* 31 Pa. 183,

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[72 Am. Dec. 730], the Supreme Court of Pennsylvania say: "The supply of gaslight is no more a duty of ***73** sovereignty than the supply of water. Both these objects may be accomplished through the agency of individuals or private corporations, and in very many instances they are accomplished by those means. If this power is granted to a borough or a city, it is a special private franchise. … The whole investment is the private property of the city, as much so as the lands and houses belonging to it. … It [the city] stands on the same footing as would any individual or body of persons upon whom the like special franchises had been conferred." In *San Francisco Gas Co. v. San Francisco,* 9 Cal. 469, the court say: "The purchase of gas involves only the exercise of a power of a private corporation; it requires no exercise of any political power. It is as much an act of a private character as if made by a private corporation." In *Esberg Cigar Co. v. Portland,* 34 Or. 282, [55 Pac. 961, 75 Am. St. Rep. 651], the facts were that the city of Portland owned and maintained a system of waterworks, and the plaintiff therein brought the action for damages for injuries caused by the negligent management of the said waterworks; and it was contended for defendant "that the waterworks belonged to the city in its public or governmental capacity, and it therefore is not liable in a common-law action for negligence in constructing or maintaining the same." But the court held otherwise, and, after alluding to the distinction above stated, said: "In accordance with this distinction it is quite universally held that when a municipal corporation voluntarily undertakes to construct and maintain water or gas works in pursuance of statutory authority, for the purpose of supplying the inhabitants thereof with water or gas at rates established by the city, it is liable for an injury in consequence of its acts in constructing and maintaining such works, the same as a private corporation or individual." And surely this principle applies as fully to the maintenance of an electric-lighting plant as to the maintenance of waterworks. In the case at bar, the city of Alameda was merely given the optional privilege of constructing and maintaining an electric-lighting plant; no duty was imposed on it to do so. Our conclusion on the main point above discussed is that the respondent cannot escape liability for the negligence averred in the complaint on the ground that it is a municipal corporation.

There are some points made by respondent upon the theory ***74** that defendant would not have been liable even if it had been a private person or corporation, which we will allude to briefly. We would not be justified in holding that the evidence was not sufficient to show that the death of appellant's wife was caused by negligence in operating the electric plant. Whatever the evidence may be on another trial, that which appears in the present record is sufficient to establish the negligence. The contention that appellant cannot recover because his wife at the time of the accident was a trespasser is not maintainable. There was, and for many years had been, a street-railroad station on Monroe Street, and south of that station, and fronting it, there was a vacant uninclosed level lot owned by a person who is in no way involved in this litigation. Across the vacant lot there was a way, or beaten path, about four feet wide, which had been for many years—more than five years—used by residents in the neighborhood in going from their homes to the said station on Monroe Street. While plaintiff's wife was walking along this path, and when within a few feet from Monroe Street, she came in contact with a live wire of respondent's electric plant, which was negligently allowed to lie across the path, and was killed by the current. It is not necessary to inquire what would have been the liability of the owner of the lot if he had also owned the electric plant and had been guilty of the negligence which caused her death, although even then the allowance of such a deadly trap probably could not have been excused on the ground that the woman was a trespasser, even if she had been. But no such question arises here. She had a right to be where she was, at least as against every one except the owner of the lot; and the respondent, itself a mere trespasser, is in no position to raise the question as to what duty the owner of the land owes to a trespasser; moreover, she was not a mere trespasser, but a licensee.

Respondent contends that the city was not liable because the grant of authority to maintain the electric plant is given to "the board of trustees of such city," and not, in terms, to the city; but we do not see any force in this contention. A "city" is a mere intangible thing, existing only in legal contemplation; it could not itself use the franchise, and can act only through its governing body, the board of trustees. A grant of a franchise, in terms, to the city, would be in ***75** effect a grant to the body having the power to use it. In *Arnold v. San Jose,* 81 Cal. 618, [22 Pac. 877], this court said: "A distinction is made by appellant between cases arising under charters making it the duty of a city, as such, to keep the streets open and in repair, and those which make it the duty of the city council to do so. We are unable to see any merit in the point." And further on in the

opinion it is shown that *Winbigler v. City of Los Angeles,* 45 Cal. 36, does not hold differently.

We do not think that there was a nonjoinder of plaintiffs; and, as to other points, it is sufficient to say that none of them are, in our opinion, tenable or necessary to be specially noticed.

The judgment appealed from is reversed.

Beatty, C. J., Angellotti, J., Henshaw, J., Lorigan, J., and Sloss, J., concurred.
SHAW, J.
I concur. The rule is well established in this state that, in the absence of a statutory provision permitting it, an action will not lie against a municipal corporation for damages caused by the negligence of its officers, agents, and servants in the performance of the public or governmental duties of such corporations. (*Winbigler v. City of Los Angeles,* 45 Cal. 37; *Howard v. San Francisco,* 51 Cal. 52; *Tranter v. City of Sacramento,* 61 Cal. 271; *Stedman v. San Francisco,* 63 Cal. 193; *Chope v. Eureka,* 78 Cal. 589, [21 Pac. 364, 12 Am. St. Rep. 113]; *Arnold v. San Jose,* 81 Cal. 618, [22 Pac. 877]; *Doeg v. Cook,* 126 Cal. 213, [58 Pac. 707, 77 Am. St. Rep. 171]; *Ukiah v. Ukiah etc. Co.,* 142 Cal. 182, [75 Pac. 773, 100 Am. St. Rep. 107]; *Sievers v. San Francisco*, 115 Cal. 654, [47 Pac. 687, 56 Am. St. Rep. 153].) The statement of the rule implies that there are other functions and powers of municipal corporations, for the negligent performance of which by their officers and servants, such corporations are liable. The distinction is clearly stated in the principal opinion. The authorities uniformly hold that the duties arising from the operation of gasworks, electric works, water- works, and such like public utilities, are of the private nature which is required to make municipal corporations liable for damages caused by negligence therein. It is evident, however, ***76** that the division of municipal functions into two classes, one public and governmental, the other private and corporate, is without any real foundation, and is made solely from the supposed necessity of doing so in order to allow a suit to be maintained for such injuries. In its public functions a municipality was said to represent the sovereign power, and as such to be exempt from private action. Hence, with respect to the class of powers here involved, it was considered necessary to designate them as private in character, in order to uphold a suit to recover for these injuries. The only reason given for classifying the power to administer public utilities as private and corporate, is that private persons and corporations frequently engage in such enterprises; that they are carried on by the city for its own profit; and, in a few cases, that the municipality has contracted with the sovereign power to do such things, and is therefore acting in a private capacity. None of these reasons is of any force. Private persons and corporations also frequently undertake to give police protection and fire protection to the inhabitants of cities. Yet these functions, in all cases where they are performed by a city, are always considered to be public and governmental, thus showing that the fact stated constitutes no reason for the distinction. It may be that in former times cities engaged in such enterprises for the sake of the profit to be made thereby. But, under our system, its charges for service are fixed solely for the purpose of covering the operating expenses and providing a sinking fund, and the profit, if any, is merely incidental. The making of contracts with the state by municipalities to supply such public needs is with us utterly unknown. In our form of government and under our constitutional provisions, a city can have no active powers or functions that are not public and governmental in character. (*Low v. Marysville,* 5 Cal. 214.) Its merely passive power to hold and possess property to which it has lawfully acquired title may not differ materially in its effects, with respect to the liability for a misuse of such property, from those of a private corporation or person to hold and possess such property, and after such property has for any reason become no longer necessary for municipal purposes, its continued ownership and possession may have no direct relation to the public ***77** welfare or benefit. But its active powers are all given for the purpose of enabling it the better to administer public affairs so as to subserve the public good and promote the general local public welfare, or, as the agency of the state, affairs of a more general concern, which are primarily committed to the state; and all such active powers, whether of one class or the other, are essentially of a public and governmental character.

It must be conceded that the rule holding cities liable for such injuries is more conducive to justice than would be the contrary. "The rule of law is a general one, that the superior or employer must answer civilly for the negligence or want of skill of his agent or servant in the course or line of his employment, by which another, who is free from contributory fault, is injured. Municipal corporations under the conditions herein stated, fall within the operation of this rule of law." (2 Dillon

on Municipal Corporations, sec. 968.) Our Civil Code declares that "No one should suffer by the act of another" (section 3520), and "For every wrong there is a remedy" (section 3523). The doctrine here applied is indeed the general rule applicable to all cases of tort, and the exemption of cities and other public corporations from liability for negligence in the exercise of some of its public and governmental functions is really in the nature of an exception to that rule. It is against natural justice that it should be made possible by any system of jurisprudence that one should receive an injury at the hands of another who is subject to be sued in every ordinary form of action, and that that other should have immunity from any action for redress by the person injured. Nor is the doctrine unjust or unfair to municipal corporations. Private corporations engaged in enterprises of this character, as is well known, are liable for the neglect of their agents and servants in the line of their duties, and the expenses caused thereby form a part of the necessary operating expenses of the business, and their rates must be fixed with that item in view. When municipal corporations engage in the same business, although they may do so solely for the general public benefit, and not for the profit to be derived therefrom, it is but fair and just that they should be subjected to the same burden. This burden can easily be ***78** shifted to the general public, who should bear it, by adjusting the rates charged for the service so as to cover this additional cost of operation.

The question how far, and in the exercise of what powers, a city should be held liable for such injuries is one of policy exclusively. The legislature has the power to dictate this policy. It has been settled at common law, upon various grounds (for it has not always been based upon this supposed distinction), that municipal corporations are liable for injuries caused in the exercise of certain powers, and are not liable for injuries arising from certain other powers, unless such liability is created by statute. Among the powers for which it is held liable in this manner are the power to carry on for the public use gasworks, electric works, waterworks, and other like public utilities, and this was a well-settled rule of the common law. (*Hill v. Boston,* 122 Mass. 344, [23 Am. Rep. 332]; 1 Dillon on Municipal Corporations, secs. 26, 27, 66, 67; 2 Dillon on Municipal Corporations, secs. 961, 966.) This common law has been carried into our jurisprudence and made the rule of decision in all the courts of this state by section 4468 of the Political Code. So far as the class of powers here involved is concerned, the rule is manifestly in accordance with justice, and is also in accordance with good public policy. It is not good policy that a person who receives an injury by the negligence of public servants engaged in carrying on such public utilities should be made to suffer the injury without recourse upon the public which receives the benefit of the services, and which, by reason of the proposed exemption of the public from such liability, would be enabled to obtain the service at less cost than if it were performed by private persons. This rule, having been established at common law, and being in existence at the time the statute was passed authorizing the creation of cities of the class to which Alameda belongs, must be considered in construing the statutory provision for the creation of such cities. It is provided by the statute (section 750 of the Municipal Corporation Act) that every municipal corporation of the fifth class "may sue and be sued in all courts and places, and in all proceedings whatever." (Deering's Gen. Laws 1897, p. 845.) I think this provision, in connection with section 4468 of the Political ***79** Code, and the established common-law rule, should be construed as a statutory declaration that cities of this class are liable for the negligence of its agents and servants in all cases where such liability was established at common law, and this can be upheld as a statutory provision without the necessity of resorting for its support to a distinction which is wholly fictitious, and which will produce, as such arbitrary distinctions are apt to produce, embarrassing consequences, if recognized as real and applied to other questions.

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Declined to Extend by City of San Diego v. Monsanto Company, S.D.Cal., April 17, 2018

1 Cal.5th 749
Supreme Court of California

DEPARTMENT OF FINANCE et al., Plaintiffs and Respondents,
v.
COMMISSION ON STATE MANDATES, Defendant and Respondent;
County of Los Angeles et al., Real Parties in Interest and Appellants.

S214855
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Filed 8/29/2016
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As Modified on Denial of Rehearing 11/16/2016

Synopsis

Background: Department of Finance, State Water Resources Control Board, and regional water quality control board filed petition for writ of administrative mandamus seeking to overturn decision of Commission on State Mandates that regional board's conditions on permit authorizing local agencies to operate storm drain systems constituted state mandates subject to reimbursement. The Superior Court, Los Angeles County, No. BS130730, Ann I. Jones, J., granted petition. Local agencies appealed. The Court of Appeal, Johnson, J., affirmed. Local agencies petitioned for review. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Corrigan, J., held that:

[1] permit itself did not indicate that permit conditions were federal mandates not subject to reimbursement;

[2] Commission was not required to defer to regional board's conclusion that challenged conditions were federally mandated;

[3] condition requiring local agencies to conduct inspections of certain facilities and construction sites was not a federal mandate; and

[4] condition requiring local agencies to install and maintain trash receptacles was not a federal mandate.

Reversed and remanded.

Opinion, 163 Cal.Rptr.3d 439, superseded.

Cuéllar, J., filed separate concurring and dissenting opinion with which Liu and Kruger, JJ., concurred.

****359** *****48** Ct.App. 2/1 B237153, Los Angeles County Super. Ct. No. BS 130730

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No appearance for Defendant and Respondent.

Opinion

Corrigan, J.

****360 *754** Under our state Constitution, if the Legislature or a state agency requires a local government to provide a new program or higher level of service, the local government is entitled to reimbursement from the state for the associated costs. (Cal. Const., art. XIII B, § 6, subd. (a).) There are exceptions, however. Under one of them, if the new program or increased service is mandated by a federal law or regulation, reimbursement is not required. (Gov. Code, § 17556, subd. (c).)

The services in question here are provided by local agencies that operate storm drain systems pursuant to a state-issued permit. Conditions in that permit are designed to maintain the quality of California's water, and to comply with the federal Clean Water Act (33 U.S.C. § 1251 et seq.). The Court of Appeal held that certain permit conditions were federally mandated, and thus not

reimbursable. We reverse, concluding that no federal law or regulation imposed the conditions nor did the federal regulatory system require the state to impose them. Instead, the permit conditions were imposed as a result of the state's discretionary action.

**361 I. BACKGROUND

The Regional Water Quality Control Board, Los Angeles Region (the Regional Board or the Board) is a state agency. It issued a permit authorizing Los Angeles County, the Los Angeles County Flood Control District, and 84 cities (collectively, the Operators) to operate storm drainage systems.[1] ***50 Permit *755 conditions required that the Operators take various steps to reduce the discharge of waste and pollutants into state waters. The conditions included installing and maintaining trash receptacles at transit stops, as well as inspecting certain commercial and industrial facilities and construction sites.

Some Operators sought reimbursement for the cost of satisfying the conditions. The Commission on State Mandates (the Commission) concluded each required condition was a new program or higher level of service, mandated by the state rather than by federal law. However, it found the Operators were only entitled to state reimbursement for the costs of the trash receptacle condition, because they could levy fees to cover the costs of the required inspections. (See discussion, *post*, at p. 761.) The trial court and the Court of Appeal disagreed, finding that all of the requirements were federally mandated.

We granted review. To resolve this issue, it is necessary to consider both the permitting system and the reimbursement obligation in some detail.

A. The Permitting System

The Operators' municipal storm sewer systems discharge both waste and pollutants.[2] State law controls "waste" discharges. (Wat. Code, § 13265.) Federal law regulates discharges of "pollutant[s]." (33 U.S.C. § 1311(a).) Both state and later-enacted federal law require a permit to operate such systems.

California's Porter–Cologne Water Quality Control Act (Porter–Cologne Act or the Act; Wat. Code, § 13000 et seq.) was enacted in 1969. It established the State Water Resources Control Board (State Board), along with nine regional water quality control boards, and gave those agencies "primary responsibility for the coordination and control of water quality." (Wat. Code, § 13001; see *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 619, 26 Cal.Rptr.3d 304, 108 P.3d 862 (*City of Burbank*).) The State Board establishes statewide policy. The regional boards formulate and *756 adopt water quality control plans and issue permits governing the discharge of waste. (*Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 875, 22 Cal.Rptr.3d 128 (*Building Industry*).)

The Porter–Cologne Act requires any person discharging, or proposing to discharge, waste that could affect the quality of state waters to file a report with the appropriate regional board. (***51 Wat. Code, § 13260, subd. (a)(1).) The regional board then "shall prescribe requirements as to the nature" of the discharge, implementing any applicable water quality control plans. (Wat. Code, § 13263, subd. (a).) The Operators must follow **362 all requirements set by the Regional Board. (Wat. Code, §§ 13264, 13265.)

[1] The federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) was enacted in 1972, and also established a permitting system. The CWA is a comprehensive water quality statute designed to restore and maintain the chemical, physical, and biological integrity of the nation's waters. (*City of Burbank, supra,* 35 Cal.4th at p. 620, 26 Cal.Rptr.3d 304, 108 P.3d 862.) The CWA prohibits pollutant discharges unless they comply with: (1) a permit (see 33 U.S.C. §§ 1328, 1342, 1344); (2) established effluent limitations or standards (see 33 U.S.C. §§ 1312, 1317); or (3) established national standards of performance (see 33 U.S.C. § 1316). (See 33 U.S.C. § 1311(a).) The CWA allows any state to adopt and enforce its own water quality standards and limitations, so long as those standards and limitations are not "less stringent" than those in effect under the CWA. (33 U.S.C. § 1370.)

The CWA created the National Pollutant Discharge Elimination System (NPDES), authorizing the Environmental Protection Agency (EPA) to issue a permit for any pollutant discharge that will satisfy all requirements established by the CWA or the EPA Administrator. (33 U.S.C. § 1342(a)(1), (a)(2).) The federal

system notwithstanding, a state may administer its own permitting system if authorized by the EPA.[3] If the EPA concludes a state has adequate authority to administer its proposed program, it must grant approval (33 U.S.C. § 1342(b)) and suspend its own issuance of permits (33 U.S.C. § 1342(c)(1)).[4]

[2] ***757** California was the first state authorized to issue its own pollutant discharge permits. (*California ex rel. State Water Resources Control Bd. v. Environmental Pro. Agcy.* (9th Cir. 1975) 511 F.2d 963, 970, fn. 11, revd. on other grounds in *EPA v. State Water Resources Control Board* (1976) 426 U.S. 200 [48 L.Ed.2d 578, 96 S.Ct. 2022].) Shortly after the CWA's enactment, the Legislature amended the Porter–Cologne Act, adding chapter 5.5 (Wat. Code, § 13370 et seq.) to authorize state issuance of permits (Wat. Code, § 13370, subd. (c)). The Legislature explained the amendment was "in the interest of the people of the state, in order to avoid direct regulation by the federal government of persons already subject to regulation under state law pursuant to [the Porter–Cologne Act]." (*Ibid.*) The Legislature provided that Chapter 5.5 be "construed to ensure consistency" with the CWA. (Wat. Code, § 13372, subd. (a).) It directed that state and regional boards issue waste discharge requirements "ensur[ing] compliance with all applicable provisions of the [CWA] ... *together with any more stringent effluent standards or limitations* necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance." *****52** (Wat. Code, § 13377, italics added.) To align the state and federal permitting systems, the legislation provided that the term " 'waste discharge requirements' " under the Act was equivalent to the term " 'permits' " under the CWA. (Wat. Code, § 13374.) Accordingly, California's permitting system now regulates discharges under both state and federal law. (*WaterKeepers Northern California v. State Water Resources Control Bd.* (2002) 102 Cal.App.4th 1448, 1452, 126 Cal.Rptr.2d 389; accord *Building Industry, supra,* 124 Cal.App.4th at p. 875, 22 Cal.Rptr.3d 128.)

In 1987, Congress amended the CWA to clarify that a permit is required for any discharge from a municipal storm sewer system serving a population of 100,000 or more. (33 U.S.C. § 1342(p)(2)(C), (D).) Under those amendments, a permit may be issued either on a system- or jurisdiction-wide basis, must effectively prohibit non-stormwater discharges into the storm sewers, and must "require controls to reduce the discharge of ****363** pollutants *to the maximum extent practicable*." (33 U.S.C. § 1342(p)(3)(B), italics added.) The phrase "maximum extent practicable" is not further defined. How that phrase is applied, and by whom, are important aspects of this case.

EPA regulations specify the information to be included in a permit application. (See 40 C.F.R. § 122.26(d)(1)(i)-(vi), (d)(2)(i)-(viii).) Among other things, an applicant must set out a proposed management program that includes management practices; control techniques; and system, design, and engineering methods to reduce the discharge of pollutants to the maximum extent practicable. (40 C.F.R. § 122.26(d)(2)(iv).) The permit-issuing agency has discretion to determine which practices, whether or not proposed by the applicant, will be imposed as conditions. (*Ibid.*)

***758 B. The Permit in Question**

In 2001, Los Angeles County (the County), acting for all Operators, applied for a permit from the Regional Board. The board issued a permit (the Permit), with conditions intended to "reduce the discharge of pollutants in storm water to the Maximum Extent Practicable" in the Operators' jurisdiction. The Permit stated that its conditions implemented *both* the Porter–Cologne Act and the CWA.

Part 4 of the Permit contains the four requirements at issue. Part 4(C) addresses commercial and industrial facilities, and required the Operators to inspect certain facilities twice during the five-year term of the Permit. Inspection requirements were set out in substantial detail.[5] Part 4(E) of the Permit addresses construction sites. It required each Operator to "implement a program to control runoff from construction activity at all construction sites within its jurisdiction," and to inspect each construction *****53** site of one acre or greater at least "once during the wet season."[6] Finally, Part 4(F) of the Permit addresses pollution from public agency activities. Among other things, it directed each Operator not otherwise regulated to "[p]lace trash receptacles at all transit stops within its jurisdiction," and to maintain them as necessary.

C. Local Agency Claims

1. Applicable procedures for seeking reimbursement

As mentioned, when the Legislature or a state agency requires a local government to provide a new program or higher level of service, the state must "reimburse that local government for the costs of the program or increased level of service." (Cal. Const., art. XIII B, § 6, subd. (a) (hereafter, ***759** section 6).)[7] However, reimbursement is not required if "[t]he statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation." (Gov. Code, § 17556, subd. (c).)

****364** The Legislature has enacted comprehensive procedures for the resolution of reimbursement claims (Gov. Code, § 17500 et seq.) and created the Commission to adjudicate them. (Gov. Code, §§ 17525, 17551.) It also established "a test-claim procedure to expeditiously resolve disputes affecting multiple agencies." (*Kinlaw v. State of California* (1991) 54 Cal.3d 326, 331, 285 Cal.Rptr. 66, 814 P.2d 1308 (*Kinlaw*).)

The first reimbursement claim filed with the Commission is called a test claim. (Gov. Code, § 17521.) The Commission must hold a public hearing, at which the Department of Finance (the Department), the claimant, and any other affected department or agency may present evidence. (Gov. Code, §§ 17551, 17553.) The Commission then determines "whether a state mandate exists and, if so, the amount to be reimbursed." (*Kinlaw, supra,* 54 Cal.3d at p. 332, 285 Cal.Rptr. 66, 814 P.2d 1308.) The Commission's decision is reviewable by writ of mandate. (Gov. Code, § 17559.)

2. The test claims

The County and other Operators filed test claims with the Commission, seeking reimbursement for the Permit's inspection and trash receptacle requirements. The Department, State Board, and Regional Board (collectively, the State) responded that the Operators were not entitled to reimbursement because each requirement was federally mandated.

The Department argued that the EPA had delegated its federal permitting authority to the Regional Board, which acted as an administrator for the EPA, ensuring the state's program complied with the CWA. The Department acknowledged the Regional Board had discretion to set detailed permit conditions, but urged that the challenged conditions were required for the Permit to comply with federal law.

*****54** The State and Regional Boards argued somewhat differently. They contended the CWA required the Regional Board to impose specific permit ***760** controls to reduce the discharge of pollutants to the "maximum extent practicable." Thus, when the Regional Board determined the Permit's conditions, those conditions were part of the federal mandate. The State and Regional Boards also argued that the challenged conditions were "animated" by EPA regulations. In support of the trash receptacle requirement, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A)(3).[8] In support of the inspection requirements, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B)(1),[9] (C)(1),[10] and (D)(3).[11]

****365** The Operators argued the conditions were not mandated by federal law, because nothing in the CWA or in the cited federal regulations required them to install trash receptacles or perform the required site inspections. They also submitted evidence showing that none of the challenged requirements were ***761** contained in their previous permits issued by the Regional Board, nor were they imposed on other municipal storm sewer systems by the EPA.

As to the inspection requirements, the Operators argued that state law required *****55** the *state and regional boards* to regulate discharges of waste. This regulatory authority included the power to inspect facilities and sites. The Regional Board had used the Permit conditions to shift those inspection responsibilities to them. They also presented evidence that the Regional Board was required to inspect industrial facilities and construction sites for compliance with statewide permits issued by the State Board (see *ante*, p. 758, fns. 5, 6). They urged that the Regional Board had shifted that obligation to the Operators as well. Finally, the Operators submitted a declaration from a county employee indicating the Regional Board had offered to pay the County to inspect

industrial facilities *on behalf of* the Regional Board, but revoked that offer after including the inspection requirement in the Permit.

The EPA submitted comments to the Commission indicating that the challenged permit requirements were designed to reduce the discharge of pollutants to the "maximum extent practicable." Thus, the EPA urged the requirements fell "within the scope" of federal regulations and other EPA guidance regarding stormwater management programs. The Bay Area Stormwater Management Agencies Association, the League of California Cities, and the California State Association of Counties submitted comments urging that the challenged requirements were state, rather than federal, mandates.

3. The commission's decision

By a four-to-two vote, the Commission partially approved the test claims, concluding none of the challenged requirements were mandated by federal law. However, the Commission determined the Operators were not entitled to reimbursement for the inspection requirements because they had authority to levy fees to pay for the required inspections. Under Government Code section 17556, subdivision (d), the constitutional reimbursement requirement does not apply if the local government has the authority to levy fees or assessments sufficient to pay for the mandated program or service.

4. Petitions for writ of mandate

The State challenged the Commission's determination that the requirements were state mandates. By cross-petition, the County and certain cities challenged the Commission's finding that they could impose fees to pay for the inspections.

The trial court concluded that, because each requirement fell "within the maximum extent practicable standard," they were federal mandates not ***762** subject to reimbursement. It granted the State's petition and ordered the Commission to issue a new statement of decision. The court did not reach the cross-claims relating to fee authority. Certain Operators appealed. [12] The Court of Appeal affirmed, concluding as a matter of law that the trash receptacle and inspection requirements were federal mandates.

****366 II. DISCUSSION

A. Standard of Review

[3] **[4]** Courts review a decision of the Commission to determine whether it is supported by substantial evidence. (Gov. Code, § 17559.) Ordinarily, when the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, the scope of review on appeal is the same. (*****56** *County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814, 38 Cal.Rptr.2d 304 (*County of Los Angeles*).) However, the appellate court independently reviews conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810, 53 Cal.Rptr.2d 521.) The question whether a statute or executive order imposes a mandate is a question of law. (*Ibid.*) Thus, we review the entire record before the Commission, which includes references to federal and state statutes and regulations, as well as evidence of other permits and the parties' obligations under those permits, and independently determine whether it supports the Commission's conclusion that the conditions here were not federal mandates. (*Ibid.*)

B. Analysis

The parties do not dispute here that each challenged requirement is a new program or higher level of service. The question here is whether the requirements were mandated by a federal law or regulation.

1. The federal mandate exception

[5] Voters added article XIII B to the California Constitution in 1979. Also known as the "Gann limit," it "restricts the amounts state and local governments may appropriate and spend each year from the 'proceeds of taxes.' " (*City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58–59, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*).) "Article XIII B is to be distinguished from article XIII A, which was adopted as Proposition 13 at ***763** the June 1978 election. Article XIII A imposes a direct constitutional limit on state and local power to

adopt and levy taxes. Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend for public purposes." (*Id.* at p. 59, fn. 1, 266 Cal.Rptr. 139, 785 P.2d 522.)

[6] **[7]** The "concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (*County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.) The reimbursement provision in section 6 was included in recognition of the fact "that articles XIII A and XIII B severely restrict the taxing and spending powers of local governments." (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81, 61 Cal.Rptr.2d 134, 931 P.2d 312 (*County of San Diego*).) The purpose of section 6 is to prevent "the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose." (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Thus, with certain exceptions, section 6 "requires the state 'to pay for any new governmental programs, or for higher levels of service under existing programs, that it imposes upon local governmental agencies.' " (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.)

As noted, reimbursement is not required if the statute or executive order imposes "a requirement that is mandated by a federal law or regulation," unless the state mandate imposes costs that exceed the federal mandate. (Gov. Code, § 17556, subd. (c).) The question here is how to apply that *****57** exception when federal law requires a local agency to obtain a permit, authorizes the state to issue the permit, and provides the state discretion in determining which conditions are necessary to achieve a general standard established by federal law, and when state law allows the imposition of conditions that exceed the federal standard. Previous decisions ****367** of this court and the Courts of Appeal provide guidance.

In *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, this court addressed local governments' reimbursement claims for the costs of extending unemployment insurance protection to their employees. (*Id.*, at p. 59, 266 Cal.Rptr. 139, 785 P.2d 522.) Since 1935, the applicable federal law had provided powerful incentives for states to implement their own unemployment insurance programs. Those incentives included federal subsidies and a substantial federal tax credit for all corporations in states with certified federal programs. (*Id.* at p. 58, 266 Cal.Rptr. 139, 785 P.2d 522.) California had implemented such a program. (*Ibid.*) In 1976, Congressional legislation required ***764** that unemployment insurance protection be extended to local government employees. (*Ibid.*) If a state failed to comply with that directive, it "faced [the] loss of the federal tax credit and administrative subsidy." (*Ibid.*) The Legislature passed a law requiring local governments to participate in the state's unemployment insurance program. (*Ibid.*)

Two local governments sought reimbursement for the costs of complying with that requirement. Opposing the claims, the state argued its action was compelled by federal law. This court agreed, reasoning that, if the state had "failed to conform its plan to new federal requirements as they arose, its businesses [would have] faced a new and serious penalty" of double taxation, which would have placed those businesses at a competitive disadvantage against businesses in states complying with federal law. (*City of Sacramento, supra,* 50 Cal.3d at p. 74, 266 Cal.Rptr. 139, 785 P.2d 522.) Under those circumstances, we concluded that the "state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses." (*Ibid.*) Because "[t]he alternatives were so far beyond the realm of practical reality that they left the state '*without discretion*' to depart from federal standards," we concluded "the state acted in response to a federal 'mandate.' " (*Ibid.* italics added.)

County of Los Angeles, supra, 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, involved a different kind of federal compulsion. In *Gideon v. Wainwright* (1963) 372 U.S. 335, 83 S.Ct. 792, 9 L.Ed.2d 799, the United States Supreme Court held that states were required by the federal Constitution to provide counsel to indigent criminal defendants. That requirement had been construed to include "the right to the use of any experts that will assist counsel in preparing a defense." (*County of Los Angeles*, at p. 814, 38 Cal.Rptr.2d 304.) The Legislature enacted Penal Code section 987.9, requiring local governments to provide indigent criminal defendants with experts for the

preparation of their defense. (*County of Los Angeles*, at p. 811, fn. 3, 38 Cal.Rptr.2d 304.) Los Angeles County sought reimbursement for the costs of complying with the statute. The state argued the statute's requirements were mandated by federal law.

The state prevailed. The Court of Appeal reasoned that, even without Penal Code section 987.9, the county would have been "responsible for providing ancillary services" under binding Supreme Court precedent. (*County of Los Angeles, supra,* 32 Cal.App.4th at p. 815, 38 Cal.Rptr.2d 304.) Penal Code section 987.9 merely codified an existing federal mandate. (***58 *County of Los Angeles*, at p. 815, 38 Cal.Rptr.2d 304.)

Hayes v. Commission on State Mandates (1992) 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547 (*Hayes*) provides a contrary example. *Hayes* involved the former federal Education of the Handicapped Act (EHA; 20 U.S.C. § 1401 et seq.). EHA was a "comprehensive measure designed to provide all handicapped children with basic educational opportunities." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547 *765) EHA required each state to adopt an implementation plan, and mandated "certain substantive and procedural requirements," but left "primary responsibility for implementation to the state." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.)

Two local governments sought reimbursement for the costs of special education assessment hearings which were required under the state's adopted plan. The state argued the requirements imposed under its plan were federally mandated. The *Hayes* court rejected that argument. Reviewing **368 the historical development of special education law (*Hayes, supra,* 11 Cal.App.4th at pp. 1582–1592, 15 Cal.Rptr.2d 547), the court concluded that, so far as the state was concerned, the requirements established by the EHA were federally mandated. (*Hayes*, at p. 1592, 15 Cal.Rptr.2d 547.) However, that conclusion "mark[ed] the starting point rather than the end of [its] consideration." (*Ibid.*) The court explained that, in determining whether federal law requires a specified function, like the assessment hearings, the focus of the inquiry is whether the "manner of implementation of the federal program was left to the *true discretion* of the state." (*Id.* at p. 1593, 15 Cal.Rptr.2d 547, italics added.) If the state "has adopted an implementing statute or regulation pursuant to the federal mandate," and had "no 'true choice' " as to the manner of implementation, the local government is not entitled to reimbursement. (*Ibid.*) If, on the other hand, "the manner of implementation of the federal program was left to the true discretion of the state," the local government might be entitled to reimbursement. (*Ibid.*)

According to the *Hayes* court, the essential question is how the costs came to be imposed upon the agency required to bear them. "If the state freely chose to impose the costs upon the local agency as a means of implementing a federal program then the costs are the result of a reimbursable state mandate regardless whether the costs were imposed upon the state by the federal government." (*Hayes, supra,* 11 Cal.App.4th at p. 1594, 15 Cal.Rptr.2d 547.) Applying those principles, the court concluded that, to the extent "the state implemented the [EHA] by freely choosing to impose new programs or higher levels of service upon local school districts, the costs of such programs or higher levels of service are state mandated and subject to" reimbursement. (*Ibid.*)

From *City of Sacramento*, *County of Los Angeles*, and *Hayes*, we distill the following principle: If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.

Division of Occupational Safety & Health v. State Bd. of Control (1987) 189 Cal.App.3d 794, 234 Cal.Rptr. 661 (*Division of Occupational Safety*) is *766 instructive. The federal Occupational Safety and Health Act of 1970 (Fed. OSHA; 29 U.S.C. § 651 et seq.) preempted states from regulating matters covered by Fed. OSHA unless a ***59 state had adopted its own plan and gained federal approval. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) No state was obligated to adopt its own plan. But, if a state did so, the plan had to include standards at least as effective as Fed. OSHA's and extend those standards to state and local employees. California adopted its own plan, which was federally approved. The state then issued a regulation that, according to local fire districts, required them to maintain three-person firefighting teams. Previously, they had been permitted to maintain two-person teams. (*Division of Occupational Safety*, at pp. 798–799, 234 Cal.Rptr. 661.) The local fire

districts sought reimbursement for the increased level of service. The state opposed, arguing the requirement was mandated by federal law.

The court agreed with the fire districts. As the court explained, a Fed. OSHA regulation arguably required the maintenance of three-person firefighting teams. (*Division of Occupational Safety, surpra,* 189 Cal.App.3d at p. 802, 234 Cal.Rptr. 661.) However, that federal regulation specifically excluded local fire districts. (*Id.* at p. 803, 234 Cal.Rptr. 661.) Had the state elected to be governed by *Fed. OSHA standards*, that exclusion would have allowed those fire districts to maintain two-person teams. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) The conditions for approval of the *state's plan* required effective enforcement and coverage of public employees. But those conditions did not make the costs of complying with the state regulation federally mandated. "[T]he initial decision to establish ... a federally approved [local] plan is an option which the state exercises ****369** freely." (*Ibid.*) In other words, the state was not "*compelled* to ... extend jurisdiction over occupational safety to local governmental employers," which would have otherwise fallen under a federal exclusion. (*Ibid.*) Because the state "was not required to promulgate [the state regulation] to comply with federal law, the exemption for federally mandated costs does not apply." (*Id.* at p. 804, 234 Cal.Rptr. 661.) [13]

San Diego Unified School Dist. v. Commission on State Mandates (2004) 33 Cal.4th 859, 16 Cal.Rptr.3d 466, 94 P.3d 589 (*San Diego Unified*) provides another example. In *Goss v. Lopez* (1975) 419 U.S. 565, 95 S.Ct. 729, 42 L.Ed.2d 725, the United States Supreme Court held that if a school principal chose to recommend a student for expulsion, federal due process principles required the school district to give that student a hearing. Education Code section 48918 provided for expulsion hearings. (*San Diego Unified*, at p. 868, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Under Education Code section 48915, a school principal had ***767** *discretion* to recommend expulsion under certain circumstances, but was compelled to recommend expulsion for a student who possessed a firearm. (*San Diego Unified*, at p. 869, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Federal law at the time did not require expulsion for a student who brought a gun to school. (*Id.* at p. 883, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

The school district argued it was entitled to reimbursement of *all* expulsion hearing costs. This court drew a distinction between discretionary and mandatory expulsions. We concluded the costs of hearings for *discretionary* expulsions flowed from a federal mandate. (*****60** *San Diego Unified, supra,* 33 Cal.4th at pp. 884–890, 16 Cal.Rptr.3d 466, 94 P.3d 589.) [14] We declined, however, to extend that rule to the costs related to *mandatory* expulsions. Because it was *state law* that required an expulsion recommendation for firearm possession, all hearing costs triggered by the mandatory expulsion provision were reimbursable state-mandated expenses. (San Diego Unified, at pp. 881–883.) As was the case in *Hayes*, the key factor was how the costs came to be imposed on the entity that was required to bear them. The school principal could avoid the cost of a federally-mandated hearing by choosing not to recommend an expulsion. But, when a state statute *required* an expulsion recommendation, the attendant hearing costs did not flow from a federal mandate. (*San Diego Unified, supra,* 33 Cal.4th at p. 881, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

2. Application

Review of the Commission's decision requires a determination as to whether federal statutory, administrative, or case law imposed, or compelled the Regional Board to impose, the challenged requirements on the Operators.

It is clear federal law did not compel the Regional Board to impose these particular requirements. There was no evidence the state was compelled to administer its *own* permitting system rather than allowing the EPA do so under the CWA. (33 U.S.C. § 1342(a).) In this respect, the case is similar to *Division of Occupational Safety, supra,* 189 Cal.App.3d 794, 234 Cal.Rptr. 661. Here, as in that case, the state chose to administer its own program, finding it was "in the interest of the people of the state, *in order to avoid direct regulation by the federal government* of persons already subject to regulation" under state law. (Wat. Code, § 13370, subd. (c), italics added.) Moreover, the Regional Board was not required by federal law to impose any specific permit conditions. The federal CWA broadly directed the board to issue permits with conditions designed to reduce pollutant discharges to the maximum ****370** extent practicable. But the EPA's regulations gave the board discretion to

determine which ***768** specific controls were necessary to meet that standard. (40 C.F.R. § 122.26(d)(2)(iv).) This case is distinguishable from *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, where the state risked the loss of subsidies and tax credits for all its resident businesses if it failed to comply with federal legislation. Here, the State was not compelled by federal law to impose any particular requirement. Instead, as in *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, the Regional Board had discretion to fashion requirements which it determined would meet the CWA's maximum extent practicable standard.

[8] **[9]** The State argues the Commission failed to account for the flexibility in the CWA's regulatory scheme, which conferred discretion on the State and regional boards in deciding what conditions were necessary to comply with the CWA. In exercising that discretion, those agencies were required to rely on their scientific, technical, and experiential knowledge. Thus, the State contends the Permit itself is the best indication of what requirements *would have been imposed* by the EPA if the Regional Board had not done so, and the Commission should have deferred to *****61** the board's determination of what conditions federal law required.

We disagree that the Permit itself demonstrates what conditions would have been imposed had the EPA granted the Permit. In issuing the Permit, the Regional Board was implementing both state and federal law and was authorized to include conditions more exacting than federal law required. (*City of Burbank, supra,* 35 Cal.4th at pp. 627–628, 26 Cal.Rptr.3d 304, 108 P.3d 862.) It is simply not the case that, because a condition was in the Permit, it was, ipso facto, required by federal law.

[10] **[11]** We also disagree that the Commission should have deferred to the Regional Board's conclusion that the challenged requirements were federally mandated. That determination is largely a question of law. Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate. The board's legal authority to administer the CWA and its technical experience in water quality control would call on sister agencies as well as courts to defer to that finding. [15] The State, however, provides no authority for the proposition that, absent such a finding, the Commission should defer to a state agency as to whether requirements were state or federally mandated. Certainly, in a trial court action challenging a regional *board's authority* to impose specific permit conditions, the board's findings regarding what conditions satisfied the federal standard would be entitled to deference. (See, e.g., *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450, citing *Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 817–818, 85 Cal.Rptr.2d 696, 977 P.2d 693 ***769**) Resolution of those questions would bring into play the particular technical expertise possessed by members of the regional board. In those circumstances, the party challenging the board's decision would have the burden of demonstrating its findings were not supported by substantial evidence or that the board otherwise abused its discretion. (*Rancho Cucamonga*, at p. 1387, 38 Cal.Rptr.3d 450; *Building Industry, supra,* 124 Cal.App.4th at pp. 888–889, 22 Cal.Rptr.3d 128.)

Reimbursement proceedings before the Commission are different. The question here was not whether the Regional Board had authority to impose the challenged requirements. It did. The narrow question here was who will pay for them. In answering that legal question, the Commission applied California's constitutional, statutory, and common law to the single issue of reimbursement. In the context of these proceedings, the State has the burden to show the challenged conditions were mandated by federal law.

[12] Section 6 establishes a general rule requiring reimbursement of all state-mandated costs. Government Code section 17556, subdivision (c), codifies an exception to that ****371** rule. Typically, the party claiming the applicability of an exception bears the burden of demonstrating that it applies. (See *Simpson Strong–Tie Co., Inc. v. Gore* (2010) 49 Cal.4th 12, 23, 109 Cal.Rptr.3d 329, 230 P.3d 1117; see also, *Long Beach Police Officers Assn. v. City of Long Beach* (2014) 59 Cal.4th 59, 67, 172 Cal.Rptr.3d 56, 325 P.3d 460.) Here, the State must explain why federal law mandated these requirements, rather than forcing the Operators to prove the opposite. The State's proposed rule, requiring the Commission to defer to the Regional Board, would leave the Commission with no role to play on the narrow question of who must pay. Such a result would fail to honor the Legislature's *****62** intent in creating the Commission.

Moreover, the policies supporting article XIII B of the California Constitution and section 6 would be undermined if the Commission were required to defer to the Regional Board on the federal mandate question. The central purpose of article XIII B is to rein in local government spending. (*City of Sacramento, supra,* 50 Cal.3d at pp. 58–59, 266 Cal.Rptr. 139, 785 P.2d 522.) The purpose of section 6 is to protect local governments from state attempts to impose or shift the costs of new programs or increased levels of service by entitling local governments to reimbursement. (*County of San Diego, supra,* 15 Cal.4th at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Placing the burden on the state to demonstrate that a requirement is federally mandated, and thus excepted from reimbursement, serves those purposes.

Applying the standard of review described above, we evaluate the entire record and independently review the Commission's determination the challenged conditions were not federal mandates. We conclude the Commission was correct. These permit conditions were not federally mandated.

***770** *a) The inspection requirements*

[13] Neither the CWA's "maximum extent practicable" provision nor the EPA regulations on which the State relies expressly required the Operators to inspect these particular facilities or construction sites. The CWA makes no mention of inspections. (33 U.S.C. § 1342(p)(3)(B)(iii).) The regulations required the Operators to include in their permit application a description of priorities and procedures for inspecting certain industrial facilities and construction sites, but suggested that the Operators would have discretion in selecting which facilities to inspect. (See 40 C.F.R. § 122.26(d)(2)(iv)(C)(1).) The regulations do not mention commercial facility inspections at all.

Further, as the Operators explained, state law made the *Regional Board* responsible for regulating discharges of waste within its jurisdiction. (Wat. Code, §§ 13260, 13263.) This regulatory authority included the power to "inspect the facilities of any person to ascertain whether ... waste discharge requirements are being complied with." (Wat. Code, § 13267, subd. (c).) Thus, state law imposed an overarching mandate that the Regional Board inspect the facilities and sites.

In addition, federal law and practice required the Regional Board to inspect all industrial facilities and construction sites. Under the CWA, the State Board, as an issuer of NPDES permits, was required to issue permits for stormwater discharges "associated with industrial activity." (33 U.S.C. § 1342(p)(3)(A).) The term "industrial activity" includes "construction activity." (40 C.F.R. § 122.26(b)(14)(x).) The Operators submitted evidence that the State Board had satisfied its obligation by issuing a general industrial activity stormwater permit and a general construction activity stormwater permit. Those statewide permits imposed controls designed to reduce pollutant discharges from industrial facilities and construction sites. Under the CWA, those facilities and sites could operate under the statewide permits rather than obtaining site-specific pollutant discharge permits.

The Operators showed that, in those statewide permits, the State Board had placed responsibility for inspecting facilities and sites on the *Regional Board*. The Operators submitted letters from the EPA indicating the State and regional boards were responsible for enforcing the terms of the statewide permits. The Operators also noted the State Board was authorized *****63** to charge a fee to facilities and sites that subscribed to the statewide permits (****372** Wat. Code, § 13260, subd. (d)), and that a portion of that fee was earmarked to pay the Regional Board for "inspection and regulatory compliance issues." (Wat. Code, § 13260, subd. (d)(2)(B)(iii).) Finally, there was evidence the Regional Board offered to pay the County to inspect industrial facilities. There would have been little reason to make that offer if federal law required the County to inspect those facilities.

***771** This record demonstrates that the Regional Board had primary responsibility for inspecting these facilities and sites. It shifted that responsibility to the Operators by imposing these Permit conditions. The reasoning of *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, provides guidance. There, the EHA required the state to provide certain services to special education students, but gave the state discretion in implementing the federal law. (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.) The state exercised its "true discretion" by selecting the specific requirements it imposed on local governments. As a result, the *Hayes* court held the costs incurred by the local governments were state-mandated costs. (*Ibid.*) Here, state and federal law required the Regional Board to

conduct inspections. The Regional Board exercised its discretion under the CWA, and shifted that obligation to the Operators. That the Regional Board did so while exercising its permitting authority under the CWA does not change the nature of the Regional Board's action under section 6. Under the reasoning of *Hayes*, the inspection requirements were not federal mandates.

The State argues the inspection requirements were federally mandated because the CWA required the Regional Board to impose permit controls, and the EPA regulations contemplated that some kind of operator inspections would be required. That the EPA regulations contemplated some form of inspections, however, does not mean that federal law required the scope and detail of inspections required by the Permit conditions.[16] As explained, the evidence before the Commission showed the opposite to be true.

b) The trash receptacle requirement

[14] The Commission concluded the trash receptacle requirement was not a federal mandate because neither the CWA nor the regulation cited by the State explicitly required the installation and maintenance of trash receptacles. The State contends the requirement was mandated by the CWA and by the EPA regulation that directed the Operators to include in their application a "description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems." (40 C.F.R. § 122.26(d)(2)(iv)(A)(3).)

The Commission's determination was supported by the record. While the Operators were required to include a description of practices and procedures in their permit application, the issuing agency has discretion whether to make ***772** those practices conditions of the permit. (40 C.F.R. § 122.26(d)(2)(iv).) No regulation cited by the State required trash receptacles at *****64** transit stops. In addition, there was evidence that the EPA had issued permits to other municipal storm sewer systems in Anchorage, Boise, Boston, Albuquerque, and Washington, D.C. that did not require trash receptacles at transit stops. The fact the EPA itself had issued permits in other cities, but did not include the trash receptacle condition, undermines the argument that the requirement was federally mandated.

c) Conclusion

Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

****373 III. DISPOSITION

We reverse the judgment of the Court of Appeal and remand for further proceedings consistent with our opinion.

Cantil–Sakauye, C.J., Werdegar, J., and Chin, J., concurred.

CONCURRING AND DISSENTING OPINION BY CUÉLLAR, J.

A local government is entitled to reimbursement from the state when the Legislature or a state agency requires it to provide new programs or increased service. (Cal. Const., art. XIII B, § 6, subd. (a).) But one crucial exception coexists with this rule. It applies where the new program or increased service is mandated by a federal statute or regulation. (Gov. Code, § 17556, subd. (c).) We consider in this case whether certain conditions to protect water quality included in a permit from the Regional Water Quality Control Board, Los Angeles Region (Regional Board or Board)—specifically, installation and maintenance of trash receptacles at transit stops, as well as inspections of certain commercial and industrial facilities and construction sites—constitute state mandates subject to reimbursement, or federal mandates within the statutory reimbursement exception.

What the majority concludes is that federal law did not compel imposition of the conditions, and that the local agencies would not necessarily have been required to comply with them had they not been imposed by the

state. In doing so, the majority upholds and treats as correct a decision by the Commission on State Mandates (the Commission) that is flawed in its approach and far too parsimonious in its analysis. This is no small feat: not ***773** only must the majority discount any expertise the Regional Board might bring to bear on the mandate question (see maj. opn., *ante*, at pp. 768–769.), but it must also overlook the Commission's reliance on an overly narrow analytical framework and prop up the Commission's decision with evidence on which the agency *could have relied*, rather than that on which it did (see *id.* at pp. 770–772).

Moreover, when the majority considers whether the permit conditions are indeed federally mandated, it purports to apply de novo review to the Commission's legal determination. (See maj. opn., *ante*, at pp. 762, 768, 770.) What it actually applies seems far more deferential to the Commission's decision—something akin to substantial evidence review—despite the Commission's own failure in affording deference *****65** to the Regional Board and, more generally, its reliance on the wrong decisionmaking framework. (Cf. *People v. Barnwell* (2007) 41 Cal.4th 1038, 1052, 63 Cal.Rptr.3d 82, 162 P.3d 596 ["A substantial evidence inquiry examines the record in the light most favorable to the judgment and upholds it if the record contains reasonable, credible evidence of solid value upon which a reasonable trier of fact *could* have relied in reaching the conclusion in question"].) Indeed, what the majority overlooks is that the Commission itself should have considered the effect of the evidence on which the majority now relies in deciding whether the challenged permit conditions were necessary to comply with federal law. And in doing so, the Commission should have extended a measure of deference to the Regional Board's expertise in administering the statutory scheme. (See *County of Los Angeles v. Cal. State Water Resources Control Bd.* (2006) 143 Cal.App.4th 985, 997, 50 Cal.Rptr.3d 619 (*State Water Board*).)

Because the Commission failed to do so, and because the Commission's interpretation of the federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) failed to account for the complexities of the statute, I would reverse the Court of Appeal's judgment and remand with instructions for the Commission to reconsider its decision. So I concur in the majority's judgment reversing the Court of Appeal, but dissent from its conclusion upholding the Commission's decision rather than remanding the matter for further proceedings.

I.

To determine whether it is the state rather than local governments that should bear ****374** the entirety of the financial burden associated with a new program or increased service, the Commission must examine the nature of the federal scheme in question. That scheme is the CWA, a statute Congress amended in 1972 to establish the National Pollutant Discharge Elimination System (the NPDES) as a means of achieving and enforcing limitations on ***774** pollutant discharges. (See *EPA v. State Water Resources Control Bd.* (1976) 426 U.S. 200, 203–204, 96 S.Ct. 2022, 48 L.Ed.2d 578.) The role envisioned for the states under the NPDES is a major one, encompassing both the opportunity to assume the primary responsibility for the implementation and enforcement of federal effluent discharge limitations by issuing permits as well as the discretion to enact requirements that are more onerous than the federal standard. (See 33 U.S.C. §§ 1251(b), 1342(b).)

But states undertaking such implementation must do so in a manner that complies with regulations promulgated by the Environmental Protection Agency (the EPA), as well as the CWA's broad provisions (including the "maximum extent practicable" standard (33 U.S.C. § 1342(p)(3)(B)(iii))), and subject to the EPA's continuing revocation authority (see *id.*, § 1342(c)(3)). Despite the breadth of the requirements the statute imposes on states assuming responsibility for permitting enforcement and the expansive nature of the EPA's revocation authority, neither the statute nor its implementing regulations include a safe harbor provision establishing a minimum level of compliance with the federal standard—an absence the majority tacitly acknowledges. (See maj. opn., *ante*, at p. 767 ["the Regional Board was not required by federal law to impose any specific permit conditions"].) Instead, implementation of the federal mandate requires the state agency—here, the Regional Board—to exercise technical judgments about the feasibility of alternative permitting conditions *****66** necessary to achieve compliance with the federal statute.

With no statutory safe harbor that the Regional Board could have relied on to ensure the EPA's approval of the

state permitting process, the Board interpreted the federal standard in light of the statutory text, implementing regulations, and its technical appraisal of potential alternatives. In discharging its own role, the Commission was then bound to afford the Regional Board a measure of "sister-agency" deference. (See *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 7, 78 Cal.Rptr.2d 1, 960 P.2d 1031 [explaining that "the binding power of an agency's *interpretation* of a statute or regulation is contextual: Its power to persuade is both circumstantial and dependent on the presence or absence of factors that support the merit of the interpretation"].) In this case, the Regional Board informed localities that, in its view, the various permit conditions it imposed would satisfy the maximum extent practicable standard. The EPA agreed the requirements were within the scope of the federal standard. The Regional Board's judgment that these conditions will control pollutant discharges to the extent required by federal law is at the core of the agency's institutional expertise. That expertise merits a measure of deference because the Regional Board's ken includes not only its greater familiarity with the CWA (relative to other entities), but also technical knowledge relevant to judgments about the water quality consequences of particular permitting conditions relevant to the provisions of the ***775** CWA. (See, e.g., 33 U.S.C. § 1342(p)(3)(B)(iii) [requiring that permits include "management practices, control techniques and system, design and engineering methods, and such other provisions as ... the State determines appropriate for the control of such pollutants"].) Casting aside the Regional Board's expertise on the issue at hand, the majority nonetheless upholds the Commission's ruling.

Remand to the Commission would have been the more appropriate course for multiple reasons. First, the Commission applied the wrong framework for its analysis. It failed to consider all the evidence relevant to whether the permit conditions were necessary for compliance with federal law. The commission compounded its error by relying on an interpretation of the CWA that misconstrues the federal statutory scheme governing the state permitting process.

****375** In particular, the Commission treated the problem as essentially a simple matter of searching the statutory text and regulations for precisely the same terms used by the Regional Board's permit conditions. Unless the requirement in question is referenced explicitly in a federal statutory or regulatory provision, the Commission's analysis suggests, the requirement cannot be a federal mandate. With respect to trash receptacles, the Commission stated: "Because installing and maintaining trash receptacles at transit stops is not expressly required of cities or counties or municipal separate storm sewer dischargers in the federal statutes or regulations, these are activities that 'mandate costs that exceed the mandate in the federal law or regulation.' " And with respect to industrial facility inspections, the Commission said this: "Inasmuch as the federal regulation (40 CFR § 122.26 (c)) authorizes coverage under a statewide general permit for the inspections of industrial activities, and the federal regulation (40 CFR § 122.26 (d)(2)(iv)(D)) does not expressly require those inspections to be performed by the county or cities (or the 'owner or operator of the discharge') the Commission finds that the state has freely chosen to impose *****67** these activities on the permittees." (Fn. omitted.)

Existing law does not support this method of determining what constitutes a federal mandate. Instead, our past decisions emphasize the need to consider the implications of multiple statutory provisions and broader statutory context when interpreting federal law to determine if a given condition constitutes a federal mandate. (See *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 76, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*); see also *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 890, 16 Cal.Rptr.3d 466, 94 P.3d 589 ["challenged state rules or procedures that are intended to implement an applicable federal law—and whose costs are, *in context*, de minimis—should be treated as part and parcel of the underlying federal mandate" (italics added)].) In contrast, ***776** the Commission's overly narrow approach to determining what constitutes a federal mandate risks creating a standard that will never be met so long as the state retains any shred of discretion to implement a federal program. It cannot be that so long as a federal statute or regulation does not expressly require every permit term issued by a state agency, then the permit is a state, rather than a federal, mandate. But this is precisely how the Commission analyzed the issue—an analysis that, remarkably, the majority does not even question. Instead, the majority combs the record for evidence that could have supported the result the Commission reached. In so doing, the majority implicitly acknowledges that the

Commission's approach to resolving the question at the heart of this case was deficient.

But if the Commission applied the wrong framework for its analysis, the right course is to remand. Doing so would obviate the need to cobble together scattered support for a decision by the Commission that was premised, in the first instance, on the Commission's own misconstrual of the inquiry before it. Instead, we should give the Commission an opportunity to reevaluate its conclusion in light of the entire record and to, where appropriate, solicit further information from the parties to shed light on what permit conditions are necessary for compliance with federal law.

The potential consequences of allowing the Commission to continue on its present path are quite troubling. For if the law were as the Commission suggests, the state would be unduly discouraged from participating in federal programs like the NPDES—even though participation might otherwise be in California's interest—if the state knows ex ante that it will be unable to pass along the expenses to the local areas that experience the most costs and benefits from the mandate at issue. Our law on unfunded mandates does not compel such a result. Nor is there an apparent prudential rationale in support of it.

The Commission's approach also fails to appreciate the EPA's role in implementing (through its interpretation and enforcement of the CWA) statutory requirements that the CWA describes in relatively broad terms. Indeed, what may be "practicable" in Los Angeles ****376** may not be in San Francisco, much less in Kansas City or Detroit. (See *Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 889, 22 Cal.Rptr.3d 128 (*Building Industry Assn.*) [explaining that "the maximum extent practicable standard is a highly flexible concept that depends on balancing numerous factors, including the particular control's technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness"].) It also suggests a lack of understanding of two interrelated matters on which the Regional *****68** Board likely has expertise: the consequences of the measures included as permit conditions relative to any ***777** alternatives and the interpretation of a complex federal statute governing regulation of the environment.

Second, beyond failing to consider all the relevant evidence bearing on the necessity of the imposed permit conditions, the Commission failed to extend any meaningful deference to the Regional Board's conclusions —even though such deference was warranted given that the nature of the decisions involved in interpreting the CWA included evaluating appropriate alternatives and determining which of those were necessary to satisfy the federal standard. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619 ["we defer to the regional board's expertise in construing language which is not clearly defined in statutes involving pollutant discharge into storm drain sewer systems"]; *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450 (*Rancho Cucamonga*) ["consideration [should be] given to the [regional board's] interpretations of its own statutes and regulations"]; *Building Industry Assn., supra,* 124 Cal.App.4th at p. 879, fn. 9, 22 Cal.Rptr.3d 128 ["we do consider and give due deference to the Water Boards' statutory interpretations [of the CWA] in this case"]; see also *Cal. Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 389–390, 196 Cal.Rptr.3d 94, 362 P.3d 792 [explaining that "an agency's expertise and technical knowledge, especially when it pertains to a complex technical statute, is relevant to the court's assessment of the value of an agency interpretation"].) In the direct challenge to the permit at issue here, the local agencies argued that the Regional Board exceeded even those requirements associated with the maximum extent practicable standard, an argument the appellate court rejected in an unpublished section of its opinion. Because of its failure to afford any deference to the Regional Board or to conduct an analysis more consistent with the relevant standard of review, the Commission essentially forces the Board to defend its decision twice: once on direct challenge and a second time before the Commission.

Conditions as prosaic as trash receptacle requirements initially may not seem to implicate the Regional Board's expertise. Yet its unique experience and technical competence matter even with respect to these conditions, because the use of such conditions implicates a decision not to use alternatives that might require greater conventional expert judgment to evaluate. Moreover, the Regional Board is likely to accumulate a distinct and greater degree of knowledge regarding issues such as the reactions of stakeholders to different requirements, and related factors relevant to determining which conditions

are necessary to satisfy the CWA's maximum extent practicable standard.

The Commission acknowledged that the State Water Resources Control Board—as well as the EPA—believed the permit requirements did not exceed ***778** this federal standard. "The comments of the State Water Board and U.S. EPA," the Commission noted, "assert that the permit conditions merely implement a federal mandate under the federal Clean Water Act and its regulations." But the Commission afforded these conclusions no clear deference in determining whether the requirements were state mandates.

Nor is the majority correct in suggesting that the Commission had only a limited responsibility, if it had one at all, to extend any deference to the Regional Board. (See maj. opn., *****69** *ante*, at pp. 768–769.) The Regional Board's judgment as to whether the imposed permit ****377** conditions were necessary to comply with federal law was a prerequisite to the Commission's own task, which was to review the Board's determination in light of all the relevant evidence. To the extent ambiguity exists as to whether the Regional Board's conclusions incorporated any findings that these conditions were necessary to meet the federal standard (see *id.* at pp. 768–769), remand to clarify the Board's position is in order. By instead simply upholding the Commission's conclusion without remand, the majority displaces any meaningful role for the Regional Board's expert judgment.

The majority does so even though courts have routinely emphasized the pivotal role regional boards play in interpreting the CWA's intricate mandate. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619; *Rancho Cucamonga, supra,* 135 Cal.App.4th at p. 1384, 38 Cal.Rptr.3d 450.) And for good reason: If the Regional Board's judgment is that the trash receptacle and inspection requirements are necessary to control pollutant discharges to the maximum extent practicable, such a conclusion is well within the purview of its expertise. Unsurprisingly, then, we have never concluded that the technical knowledge relevant to interpreting the requirements of the CWA—a statute that lacks a safe harbor and where discerning what phrases such as maximum extent practicable mean given existing conditions and technology is complex—lies beyond the ambit of the Regional Board's expertise, or otherwise proves distinct from the sort of expertise that merits deference.

Third, the Commission devoted insufficient attention in its analysis to the role of states in implementing the CWA, and to how that role can be harmonized with the significant protections against unfunded mandates that the state Constitution provides. (See Cal. Const., art. XIII B, § 6, subd. (a).) By allowing states to assume such an important role in implementing its provisions, the CWA reflects principles of cooperative federalism. (See 33 U.S.C. §§ 1251(b), 1342(b); see also *Boise Cascade Corp. v. EPA* (9th Cir. 1991) 942 F.2d 1427, 1430 ["The federal-state relationship established by the [Clean Water] Act is ... illustrated in Congress' goal of encouraging states to 'assume the major role in the operation of the NPDES program' "].) In accordance with the CWA's express provisions, California chose to assume ***779** the responsibility for implementation of the NPDES program in the state—a role that requires further specification of permitting conditions. (See 33 U.S.C. § 1342(c)(3) [states must administer permitting programs "in accordance with requirements of this section," including compliance with the maximum extent practicable standard].) In the process, the state must comply with the constitutional protections against unfunded mandates requiring reimbursement of localities if permit conditions exceed what is necessary to comply with the relevant federal mandate. But given the nature of the relevant CWA provisions—and particularly the maximum extent practicable standard—it is wrong to assume that the conditions at issue in this case exceed what is necessary to comply with the CWA simply because neither the statute nor its regulations explicitly mention those conditions. The consequence of that assumption, moreover, risks discouraging the state from assuming cooperative federalism responsibilities—and may even encourage the state to withdraw from administering the NPDES. Indeed, counsel for the state indicated at oral argument that if the Commission's reasoning were upheld—and the state were required to foot the bill for any *****70** conditions not expressly mentioned in the applicable federal statutes or regulations—it might think twice about entering into such arrangements of cooperative federalism.

In light of these concerns with the Commission's approach to this case, it is difficult to see the basis for—or utility of—upholding the Commission's decision, even under

the inscrutable standard of review the majority employs. (See *California Youth Authority v. State Personnel Bd.* (2002) 104 Cal.App.4th 575, 586, 128 Cal.Rptr.2d 514 [substantial evidence review requires that all evidence be considered, including evidence that does not support the agency's decision]; see also *Sierra Club v. U.S. Army Corps of Engineers* (2d Cir. 1983) 701 F.2d 1011, 1030 ["the court may properly be skeptical as to whether an [agency report's] conclusions have a substantial basis in fact if the responsible agency has ****378** apparently ignored the conflicting views of other agencies having pertinent expertise"].) The better course, in my view, would be for us to articulate the appropriate standard for evaluating the question whether these permit conditions are state mandates and then remand for the Commission to apply it in the first instance.

II.

The Commission relied on a narrow approach that only compares the terms of a permit with the text of the CWA and its implementing regulations. Instead, the Commission should have employed a more flexible methodology in determining whether the permit conditions were federally mandated. Such a flexible approach accords with our prior case law. (See *City of Sacramento, supra,* 50 Cal.3d at p. 76, 266 Cal.Rptr. 139, 785 P.2d 522 [whether local government appropriations are ***780** federally mandated and therefore exempt from taxing and spending limitations under § 9, subd. (b), of art. XIII B of the Cal. Const. depends on, inter alia, the nature and purpose of the federal program, whether its design suggests an intent to coerce, when state or local participation began, and the legal and practical consequences of nonparticipation or withdrawal].) Moreover, it would have the added benefit of not discouraging the state from participating in ventures of cooperative federalism.

The majority may be correct that the facts of *City of Sacramento* are distinguishable. (See maj. opn., *ante*, at p. 768.) In that case, the state risked forsaking subsidies and tax credits for its resident businesses if it failed to comply with federal law requiring that unemployment insurance protection be extended to local government employees. (*Id.* at p. 764.) Here, in contrast, the negative consequences of failing to comply with federal law may seem less severe, at least in fiscal terms: the EPA may determine that the state is not in compliance with the CWA and reassert authority over permitting. (See 33 U.S.C. § 1342(c)(3).) But *City of Sacramento* nonetheless remains relevant, even though a precisely comparable level of coercion may not exist here. The flexible approach we articulated in that case remains the best way to ensure that some weight is given to the Regional Board's technical expertise, and the conclusions resulting therefrom, while also taking account of the cooperative federalism arrangements built into the CWA.

So instead of adopting an approach foreign to our precedent, the Commission should have begun its analysis with the statutory and regulatory text—and then it should have considered other relevant materials and record evidence bearing on whether the permit conditions are necessary *****71** to satisfy federal law. Crucially, such evidence includes how the federal regulatory scheme operates in practice. The Commission could have examined, for instance, previous permits issued by the EPA in similarly situated jurisdictions, comparing them to the inspection and trash receptacle requirements the Regional Board imposed here and giving due consideration to the EPA's conclusion that the maximum extent practicable standard is applied in a highly site-specific and flexible manner in order to account for unique local challenges and conditions. (See 64 Fed. Reg. 68722, 68754 (Dec. 8, 1999).) The Commission could also have considered whether, instead of identifying permitting conditions necessary to comply with the CWA, the state shifted onto local governments responsibility to conduct inspections or provide trash receptacles. The majority wisely notes that these are factors the Commission *could* have examined. (See maj. opn., *ante*, at pp. 770–772.) But the Commission mentioned this evidence only briefly, failing to grapple in any meaningful way with its implications for the issue at hand. We should allow the Commission an opportunity to do so in the first instance.

***781** The Commission should have also accorded appropriate deference to the Regional Board's conclusions regarding how best to comply with the federal maximum extent practicable standard. One way to ensure that such deference is given would be to place on the party seeking reimbursement the burden of demonstrating that the challenged permit conditions clearly exceed the federal standard, or that they were otherwise unnecessary ****379** to reduce pollutant discharges to the maximum extent practicable. Doing so would make sense where the state

is implementing a federal program that envisions routine state participation, the federal program does not itself define the minimum degree of compliance required, and the state's implementing agency reasonably determines in its expertise that certain conditions are necessary to comply with the applicable federal standard.

* * *

The Commission's decision—and the approach that produced it—fails to accord with existing law and with the nature of the applicable federal scheme. The state is not responsible for reimbursing localities for permit conditions that are necessary to comply with federal law, a circumstance that renders interpretation of the CWA central to this case. A core principle of the CWA is to facilitate cooperative federalism, by allowing states to take on a critical responsibility in exchange for compliance with a set of demanding standards overseen by a federal agency capable of withdrawing approval for noncompliance. (See *Arkansas v. Oklahoma* (1992) 503 U.S. 91, 101, 112 S.Ct. 1046, 117 L.Ed.2d 239 ["The Clean Water Act anticipates a partnership between the States and the Federal Government, animated by a shared objective: 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters' "]; *Shell Oil Co. v. Train* (9th Cir. 1978) 585 F.2d 408, 409 ["Shell's complaint must be read against the background of the cooperative federal-state scheme for the control of water pollution"].) The Commission failed to interpret the statute in light of nuances in its text and structure. And it failed to offer even a modicum of deference to the Regional Board's interpretation, despite the Board's clear expertise that the technical nature of the questions necessary to interpret the scope of the CWA demands.

Accordingly, I would remand the matter to the Court of Appeal with directions that it instruct the Commission to reconsider its decision. On reconsideration, the Commission should appropriately defer to the *****72** Regional Board, consider all relevant evidence bearing on the question at hand, and ensure the evidence clearly shows the challenged permit conditions were not necessary to comply with the federal mandate. This is the standard that most ***782** thoroughly reflects our existing law and the nature of the CWA. Any dilution of it exacerbates the risk of undermining the nuanced federal-state arrangement at the heart of the CWA.

Liu, J., and Kruger, J., concurred.

All Citations

1 Cal.5th 749, 378 P.3d 356, 207 Cal.Rptr.3d 44, 16 Cal. Daily Op. Serv. 9501, 2016 Daily Journal D.A.R. 8996, 2016 Daily Journal D.A.R. 11,393

Footnotes

1 The cities involved are the Cities of Agoura Hills, Alhambra, Arcadia, Artesia, Azusa, Baldwin Park, Bell, Bellflower, Bell Gardens, Beverly Hills, Bradbury, Burbank, Calabasas, Carson, Cerritos, Claremont, Commerce, Compton, Covina, Cudahy, Culver City, Diamond Bar, Downey, Duarte, El Monte, El Segundo, Gardena, Glendale, Glendora, Hawaiian Gardens, Hawthorne, Hermosa Beach, Hidden Hills, Huntington Park, Industry, Inglewood, Irwindale, La Cañada Flintridge, La Habra Heights, Lakewood, La Mirada, La Puente, La Verne, Lawndale, Lomita, Los Angeles, Lynwood, Malibu, Manhattan Beach, Maywood, Monrovia, Montebello, Monterey Park, Norwalk, Palos Verdes Estates, Paramount, Pasadena, Pico Rivera, Pomona, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Rosemead, San Dimas, San Fernando, San Gabriel, San Marino, Santa Clarita, Santa Fe Springs, Santa Monica, Sierra Madre, Signal Hill, South El Monte, South Gate, South Pasadena, Temple City, Torrance, Vernon, Walnut, West Covina, West Hollywood, Westlake Village, and Whittier.

2 The systems at issue here are "municipal separate storm sewer systems," sometimes referred to by the acronym "MS4." (40 C.F.R. § 122.26(b)(19) (2001).) A "municipal separate storm sewer" is a system owned or operated by a public agency with jurisdiction over disposal of waste and designed or used for collecting or conveying storm water. (40 C.F.R. § 122.26(b)(8) (2001).) Unless otherwise indicated, all further citations to the Code of Federal Regulations are to the 2001 version.

3 For a state to acquire permitting authority, the governor must give the EPA a "description of the program [the state] proposes to establish," and the attorney general must affirm that the laws of the state "provide adequate authority to carry out the described program." (33 U.S.C. § 1342(b).)

4 The EPA may withdraw approval of a state's program (33 U.S.C. § 1342(c)(3)), and also retains some supervisory authority: States must inform the EPA of all permit applications received and of any action related to the consideration of a submitted application (33 U.S.C. § 1342(d)(1)).

5 As to commercial facilities, Part 4(C)(2)(a) required each Operator to inspect each restaurant, automotive service facility, retail gasoline outlet, and automotive dealership within its jurisdiction, and to confirm that the facility employed best management practices in compliance with state law, county and municipal ordinances, a Regional Board resolution, and the Operators' storm water quality management program (SQMP). For each type of facility, the Permit set forth specific inspection tasks.

Part 4(C)(2)(b) addressed industrial facilities, requiring the Operators to inspect them and confirm that each complied with county and municipal ordinances, a Regional Board resolution, and the SQMP. The Operators also were required to inspect industrial facilities for violations of the general industrial activity stormwater permit, a statewide permit issued by the State Board that regulates discharges from industrial facilities. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

6 Part 4(E)(4) required inspections for violations of the general construction activity stormwater permit, another statewide permit issued by the State Board. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

7 " 'Costs mandated by the state' means any increased costs which a local agency or school district is required to incur ... as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIIIB of the California Constitution." (Gov. Code, § 17514.)

8 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls," and that, at a minimum, that description shall include, among other things, a "description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities." (40 C.F.R. § 122.26(d)(2)(iv)(A), (A)(3).)

9 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program, including a schedule, to detect and remove ... illicit discharges and improper disposal into the storm sewer," and that the proposed program shall include a "description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system." (40 C.F.R. § 122.26(d)(2)(iv)(B), (B)(1).)

10 40 Code of Federal Regulations part 122.26(d)(2)(iv)(C) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system," and that the program shall "[i]dentify priorities and procedures for inspections and establishing and implementing control measures for such discharges." (40 C.F.R. § 122.26(d)(2)(iv)(C), (C)(1).)

11 40 Code of Federal Regulations part 122.26(d)(2)(iv)(D) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system," which shall include, a "description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality." (40 C.F.R. § 122.26(d)(2)(iv)(D), (D)(3).)

12 The appellants are County and the Cities of Artesia, Azusa, Bellflower, Beverly Hills, Carson, Commerce, Covina, Downey, Monterey Park, Norwalk, Rancho Palo Verdes, Signal Hill, Vernon, and Westlake Village.

13 In the end, the court held that the challenged state regulation did not obligate the local fire district to maintain three-person firefighting teams. Accordingly, the state regulation did not mandate an increase in costs. (*Division of Occupational Safety, supra,* 189 Cal.App.3d at pp. 807–808, 234 Cal.Rptr. 661.)

14 To the extent Education Code section 48918 imposed requirements that went beyond the mandate of federal law, those requirements were merely incidental to the federal mandate, and at most resulted in "a de minimis cost." (*San Diego*

Unified, supra, 33 Cal.4th at p. 890, 16 Cal.Rptr.3d 466, 94 P.3d 589.) The State does not argue here that the costs of the challenged permit conditions were de minimis.

15 Of course, this finding would be case specific, based among other things on local factual circumstances.

16 The State also relied on a 2008 letter from the EPA indicating that the requirements to inspect industrial facilities and construction sites fell within the maximum extent practicable standard under the CWA. That letter, however, does not indicate that federal law required municipal storm sewer system operators to inspect all industrial facilities and construction sites within their jurisdictions.

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County of Los Angeles

JUL 09 2018

Sherri R. Carter, Executive Officer/Clerk
By Fernando Becerra, Jr., Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al., Petitioners, **v.** **COMMISSION ON STATE MANDATES,** Respondent, **COUNTY OF LOS ANGELES, et al.,** Real Parties in Interest.	Case No. BS130730 [A[redacted]] **JUDGMENT** Dept.: 86 Judge: The Honorable Amy D. Hogue Action Filed: July 20, 2010
COUNTY OF LOS ANGELES, et al., Cross-Petitioners, **v.** **COMMISSION ON STATE MANDATES,** Cross-Respondent, **STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al.,** Cross-Real Parties in Interest.	

On January 31, 2018, a post-remand hearing was held on the Petition for Writ of Mandate and Cross-Petition for Writ of Mandate in the Superior Court of the State of California, Los Angeles County, Department 86, the Honorable Amy D. Hogue presiding. Nelson R. Richards, Deputy Attorney General, California Department of Justice, Office of the Attorney General, appeared on behalf of Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region. Howard Gest of Burhenn & Gest LLP appeared on behalf of Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill. No appearance was made on behalf of Respondent Commission on State Mandates.

On February 9, 2018, the Court issued a minute order granting the Petition and denying the Cross-Petition. A copy of that order is incorporated herein and attached as Exhibit A. For the reasons set forth in that order, IT IS ORDERED, ADJUDGED, AND DECREED that:

JUDGMENT on the Petition is entered in FAVOR of Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region, and AGAINST Respondent Commission on State Mandates and Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill; the peremptory writ of mandate requested in the Petition is GRANTED; let a writ of mandate issue to Respondent Commission on State Mandates; and,

JUDGMENT on the Cross-Petition is entered in FAVOR of Respondent Commission on State Mandates and Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region, and AGAINST and Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill on the grounds that the Cross-Petition is moot; the peremptory writ of mandate requested in the Cross-Petition is DENIED as moot.

Dated: JUL 0 9 2018

AMY D. HOGUE, JUDGE
The Honorable Amy D. Hogue
Judge of the Los Angeles Superior Court

APPROVED AS TO FORM

Dated: May 17, 2018

BURHENN & GEST LLP

HOWARD GEST
Attorneys for Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill

Dated: May 14 2018

CAMILLE SHELTON
CHIEF LEGAL COUNSEL
COMMISSION ON STATE MANDATES
Attorneys for Respondent Commission on State Mandates

EXHIBIT A

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Sherri R. Carter, Executive Officer/Clerk
By Fernando Becerra, Jr., Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al., Petitioners, vs. COMMISSION ON STATE MANDATES, Respondent, COUNTY OF LOS ANGELES, et al., Real Parties in Interest. AND RELATED CROSS-PETITION.	Case No.: BS130730 ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT Hearing Date: January 31, 2018 Dept.: 86

I. Introduction

In December 2001, the Los Angeles Regional Water Quality Control Board ("Regional Board") issued a municipal stormwater permit (the "permit") to the County of Los Angeles, Los

Angeles County Flood Control District, and 84 cities (the "Operators"). (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' municipal separate storm sewer systems ("MS4s"). Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05).

In 2003, the Operators filed "test claims" with the Commission on State Mandates ("Commission") seeking a subvention of funds under article XIII B, section 6 for these permit requirements. Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." The Commission originally refused jurisdiction over the claims because Government Code § 17516(c)'s definition of "executive order" excluded permits issued by the Regional Boards. On appeal, the Second District held that exclusion of the Regional Board permits from the definition of "executive order" was unconstitutional.

Thereafter, the Operators re-filed their test claims with the Commission. On July 31, 2009 the Commission issued a Statement of Decision (SOD). (AR 5555 – 5626.) In the SOD, the Commission concluded, as to Issue 1, that the challenged permit conditions were subject to article XIII B, section 6 of the California constitution and made the following findings: (A) the permit is an executive order within the meaning of article XIII B, section 6 of the California constitution and Government Code section 17516 (AR 5574); (B) the challenged sections of the permits were not undertaken at the option or discretion of the claimants (AR 5575); and (C) none of the challenged provisions in the permit (the transit trash receptacle and inspection permit provisions in Parts 4C2a, 4C2b, 4E and 4F5c3) was a federal mandate (AR 5576 – 5603). The Commission's SOD concluded, on Issue 2, that all of the challenged provisions imposed a new program or higher level of service within the meaning of article XIII B, section 6 of the California constitution. (AR 5603.) Addressing Issue 3, the Commission's SOD examined whether the challenged provisions imposed costs mandated by the state within the meaning of Government Code sections 17514 and

17556 or qualified for any exceptions under Government Code section 17556. (AR 5605.) With respect to the provisions requiring inspections, the Commission concluded the exception in Section 17556(d) applied because various statutes give the local authorities discretion to impose fees. (AR 5625.) However, the Commission concluded the permit's requirements (under part 4F5c3) for the placement and maintenance of trash receptacles was a program that qualified as a state mandate subject to subvention. (AR 5625.)

Petitioners Department of Finance, State Water Resources Control Board ("State Board") and Regional Board (collectively "Petitioners" or "State Agencies") filed a petition for writ of mandate to set aside the Commission's decision arguing it was an abuse of discretion to conclude the challenged permit provisions were state mandates subject to article XIII B section 6 and that the SOD was erroneous because (1) the permit terms were required by federal law and thus not state mandates (Petition ¶ 33(a)); (2) the permit terms did not impose a new program or higher level of service (Petition ¶ 34); and (3) the permittees had authority to levy fees to pay for the trash receptacle requirement (Petition ¶ 35). The County and several cities filed a cross-petition seeking to set aside the Commission's determination the inspection costs were not reimbursable because the Operators had the ability to assess fees to cover them.

In August 2011, this Court (Judge Ann I. Jones presiding) issued a decision concluding the challenged permit terms were federal mandates and thus not reimbursable state mandates under Government Code section 17556(c). The Court did not address the cross-petition. On October 16, 2013, the Second District affirmed this ruling. On August 29, 2016, the Supreme Court reversed holding that the permit requirements were not federal mandates. (*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) The Supreme Court remanded the matter back to this Court to address the "other arguments in [the State's] writ petition" as well as "the issues presented in the Operators' cross-petition." (*Id.* at 772.)

Petitioners and Cross-Petitioners have both filed briefs in support of their additional arguments. Petitioners seek a writ of mandate setting aside the Commission's decision in part arguing (1) the permit terms did not impose a new program or higher level of service and (2) the permittees had fee authority to pay for the trash receptacle. Cross-Petitioners also seek a writ of

mandate setting aside the Commission's decision in part arguing that they did not have authority to levy fees to pay for inspections of commercial, industrial, and construction sites.

II. Statutory Framework

A. The Clean Water Act

The permit at issue in this case was issued pursuant to obligations imposed by the Clean Water Act (CWA) (33 U.S.C. §§ 1251-1387) which was originally enacted as an amendment to the Federal Water Pollution Control Act. Section 1311(a) of the CWA articulates a broad federal prohibition against water pollution ("Except in compliance with this section and [other sections], the discharge of any pollutant by any person shall be unlawful") and imposes criminal penalties against any knowing violation. (33 U.S.C. § 1311(a), § 1319.) The Act's primary means for enforcing effluent limitations and standards is the National Pollution Discharge Elimination System (NPDES). "The NPDES sets out the conditions under which the federal EPA or a state with an [EPA] approved water quality control program can issue permits for the discharge of pollutants in wastewater. (33 U.S.C. § 1342(a) & (b).) In California, wastewater discharge requirements established by [permits issued by the regional boards] are the equivalent of the NPDES permits required under federal law." (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

In 1987 amendments, "Congress distinguished between industrial and municipal storm water discharges. With respect to *industrial* storm water discharges, Congress provided that NPDES permits 'shall meet all applicable provisions of this section and section 1311 [requiring the EPA to establish effluent limitations under specific timetables] ....'" (*Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 874 [citing 33 U.S.C. § 1342(p)(3)(A)].) "With respect to *municipal* storm water discharges, Congress clarified that the EPA had the authority to fashion NPDES permit requirements to meet water quality standards without specific numerical effluent limits and instead to impose 'controls to

reduce the discharge of pollutants to the maximum extent practicable ....'" (*Ibid* [citing 33 U.S.C. § 1342(p)(3)(B)(iii)].) The law requires permits for municipal stormwater discharge to be prohibitory, stating that such permits "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers" and "shall require controls to reduce the discharge of pollutants to the maximum extent practicable . . . ." (33 U.S.C. 1342(p)(3)(B)(ii) and (iii).)

B. *California Porter-Cologne Water Quality Control Act*

In 1969, California enacted the Porter-Cologne Water Quality Control Act. (Wat. Code, § 13000 *et seq.*) The Act established the State Water Resources Control Board, responsible for establishing statewide policy, as well as nine regional water quality control boards, responsible for creating water quality control plans and issuing permits to govern the discharge of waste. (Wat. Code, § 13001; *Building Industry, supra*, 124 Cal.App.4th at 875.) Shortly after Congress enacted the Clean Water Act in 1972, the California Legislature added chapter 5.5 to the Porter-Cologne Act to ensure that it would obtain approval to implement the provisions of the Clean Water Act. (Wat. Code, § 13370(c); *Building Industry, supra*, 124 Cal.App.4th at 875.) In 1973, California obtained approval to issue NPDES permits. (*Environmental Protection Agency v. California ex rel. State Water Resources Control Bd.* (1976) 426 U.S. 200, 209.)

Under chapter 5.5 of the Porter-Cologne Act, the Water Boards issue "waste discharge requirements" which "ensure compliance with all applicable provisions of the [Clean Water Act] . . . together with any more stringent effluent standards or limitations necessary to implement water quality control plans . . . ." (Wat. Code § 13377.) These "wastewater discharge requirements established by the regional boards are the equivalent of the NPDES permits required by federal law." (Wat. Code § 13374; *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

C. The 2001 Permit

In December 2001, the Regional Board issued to the Operators the municipal stormwater permit at issue in this case. (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' MS4s. Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05). (See *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 758.)

III. Standard of Review

Code of Civil Procedure section 1094.5 is the administrative mandamus provision providing the procedure for judicial review of adjudicatory decisions rendered by administrative agencies. (*Topanga Ass'n for a Scenic Community v. County of Los Angeles*, (1974) 11 Cal. 3d 506, 514-15.) Section 1094.5(a) states, in pertinent part, that "[w]here the writ is issued for the purpose of inquiring into the validity of any final administrative order or decision made as the result of a proceeding in which by law a hearing is required to be given, evidence is required to be taken, and discretion in the determination of facts is vested in the inferior tribunal, corporation, board, or officer, the case shall be heard by the court sitting without a jury." Under Section 1094.5(b), the pertinent issues are: (1) whether the respondent has proceeded without jurisdiction; (2) whether there was a fair trial; and (3) whether there was a prejudicial abuse of discretion. An abuse of discretion is established if the respondent has not proceeded in the manner required by law, the decision is not supported by the findings, or the findings are not supported by the evidence. (Code Civ. Proc. § 1094.5(b).)

In general, an agency is presumed to have regularly performed its official duties. (Evid. Code § 664.) Therefore, the petitioner seeking administrative mandamus has the burden of proof. (*Steele v. Los Angeles County Civil Service Commission*, (1958) 166 Cal. App. 2d 129, 137; see

also *Alford v. Pierno* (1972) 27 Cal.App.3d 682, 691 ["[T]he burden of proof falls upon the party attacking the administrative decision to demonstrate wherein the proceedings were unfair, in excess of jurisdiction or showed prejudicial abuse of discretion."].)

In this case, the determination whether the permit is a state-mandated program or higher level of service under article XIII B, section 6 is a question of law that the Court reviews *de novo*. (*County of San Diego v. State*, (1997) 15 Cal.4th 68, 109; *Carmel Valley Fire Protection Dist. v. State of California*, (1987) 190 Cal.App.3d 521, 536.) When reviewing the Commission's determination, the Court reviews the record to determine if substantial evidence supports the decision. (Gov. Code § 17559(b).)

IV. Analysis

A. Petitioners Did Not Waive the Arguments in their Writ Petition

After determining that the permit conditions were not federally mandated, the Supreme Court remanded the matter with the following instructions:

> Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

(*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) Cross-Petitioners argue that Petitioners waived the arguments they now assert ((1) that the permit requirements did not impose a new program or higher level of service; and (2) that the Operators have fee authority sufficient to pay for the trash receptacle requirement) because they failed to raise those arguments in their original "Memorandum of Points and Authorities in Support of Petition for Writ of Administrative Mandamus" filed on June 10, 2011. However, Petitioners did raise those arguments in their original *writ petition* filed on February 17, 2011. (See Petition ¶ 34,

35.) The Supreme Court's mandate directs this Court to address the State's "other arguments in its writ petition." The Court therefore finds Petitioners may assert them on remand.

B. The Permit Is Not a State Mandated Program or Policy for which the Operators Are Entitled to a Subvention of Funds Under Article XIII B

Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." In this action, the Operators seek a subvention of funds to pay for the trash receptacle and inspection requirements imposed by the 2001 municipal stormwater permit (the "permit").

The Commission concluded the receptacle and inspection requirements constituted "a program within the meaning of article B, section 6." (AR 5603.) It pointed out the requirements "are limited to local government entities" and "[provide] a service to the public by preventing or abating pollution in waterways and beaches in Los Angeles County." (*Id.*) The Commission also cited page 13 of the permit which states, "The objective of this Order is to protect the beneficial uses of receiving waters in Los Angeles County." (*Id.*)

Petitioners contend that the Operators are not entitled to reimbursement because the Clean Water Act is a law of general applicability that prohibits both public and private entities from discharging pollutants from point sources to waters of the United States without an NPDES permit. In support of this argument, Petitioners cite several cases addressing state legislation: *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, and *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

In *County of Los Angeles*, the County of San Bernardino and City of Los Angeles filed test claims seeking reimbursement for expenditures mandated by newly enacted laws increasing the amounts which employers, including local governments, must pay in workers' compensation

benefits to injured employees and families of deceased employees. (*County of Los Angeles, supra*, 43 Cal.3d at 50-51.) The Supreme Court held that the reimbursement claims were properly denied by the State Board because "the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive." (*Id.* at 57-58.) The Supreme Court explained:

> "[W]hen the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or increased cost of programs administered locally **and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities.**

(*Id.* at 46-50, emphasis added.)

In *City of Sacramento*, the City of Sacramento and County of Los Angeles filed claims with the State Board seeking subvention of the costs imposed on them by statutes which extended mandatory coverage under the state's unemployment insurance law to state and local governments and nonprofit corporations. (*City of Sacramento*, 50 Cal.3d at 59.) The City and County argued that the statutes imposed a unique requirement on them because it applied only to them and compelled costs to which they were not previously subject. (*Id.* at 68.) The Supreme Court held that the statute did not constitute a "new program" or "higher level of service" because "[m]ost private employers in the state already were required to provide unemployment protection to their employees" and thus the statute "merely [made] the local agencies 'indistinguishable in this respect from private employers.' " (*Id.* at 67.)

In *City of Richmond*, the city filed a test claim with the Commission on State Mandates seeking subvention of the costs imposed on it by a statute extending workers' compensation death benefits. (*City of Richmond, supra*, 64 Cal.App.4th at 1193.) The appellate court held that the City was not entitled to reimbursement because "the law ma[de] the workers' compensation death benefit requirements as applicable to local governments as they are to private employers" and thus

"impose[d] no 'unique requirement' on local governments." (*Id.* at 1199.) The court observed that, "while the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments." (*Id.* at 1199.)

Although in each of these cases, the "state mandate" under consideration was legislation of general applicability, whereas in this case, the "state mandate" is the particular NPDES permit ("executive order") challenged in the test cases, this Court does not regard that distinction as making any difference. Under Government Code § 17514, "costs mandated by the state" are defined to include statutes and executive orders. In the first round of appeals in this case, the appellate court in *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898 rejected, as unconstitutional, the provision in Section 17516(c), which purported to exempt "any order, plan requirement, rule or regulation" of the State Water Resources Control Board from the definition of an "executive order" potentially subject to subvention. The language in that court's discussion of the matters to be remanded to the Commission specifies that the "state mandate" under consideration is the permit:

> "The Commission urges that should this court conclude Section 17516(c) is unconstitutional, the appropriate remedy is to afford the Commission the opportunity to pass on the merits of the subject test claims on the issues of whether (1) *the subject permit* qualifies as a state-mandated program under article XIII B, section 6; (2) *the permit* amounts to a new program or higher level of services; and (3) *the permit* imposes costs on local entities. (Gov. Code, § § 17514, 17556. We find its position persuasive."

(*Id.* at 905, emphasis added.) The court further noted that the question "[w]hether *the permit* in question . . . governs both public and private pollution dischargers to the same extent present[ed] factual issues not yet resolved." (*Id.* at 919, emphasis added.) Consistent with this language, the Commission concluded "the issue is not whether NPDES permits generally constitute a 'program'

within the meaning of article XIII B, section 6," but "whether the permit in this test claim . . . constitutes a program because this permit is the only one over which the Commission has jurisdiction." (AR 5604.) On remand, the Commission resolved this issue, concluding that the permit applied exclusively to local agencies and therefore constituted a "program" within the meaning of article XIII B, section 6. (AR 5603.) Based on the language in *County of Los Angeles* quoted above, this Court agrees with the Commission that the question before this Court is whether the Operators' permit includes one or more state mandates subject to subvention. As explained below, this Court concludes it does not.

In *County of Los Angeles, supra,* the Supreme Court provided two alternative definitions for "program" under article XIII B, section 6, explaining they could either be "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra,* 43 Cal.3d at 56.) The Supreme Court based these definitions on the intent behind constitutional amendment as evidenced by the Ballot Pamphlet presented to the voters. The court focused on language in the Pamphlet emphasizing the measure would "not allow the state government to force programs on local governments without the state paying for them." (*Id.*) Based on this language, the Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." From the Supreme Court's point of view, "[l]aws of general application are not passed by the Legislature to 'force' programs on localities." (*Id.* at 57.) The Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57.)

As noted above, the Commission concluded the receptacle and permitting requirements in the permit constituted "programs" subject to subvention apparently referencing the first alternative definition of "program" in *County of Los Angeles.* This Court is not, however, persuaded the

receptacle and inspection requirements are "programs that carry out the governmental function of providing services to the public." Unlike the executive order establishing minimum clothing and equipment requirements for firefighters addressed in *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537, an NPDES permit enforcing a prohibition against polluting is not a government program in the usual sense of the word. Indeed, a ban on contaminated discharges is more akin to a criminal law than a program delivering a service to the public at the taxpayers' expense. It is noteworthy that Section 17556(g) exempts from subvention costs mandated by statutes creating new crimes "for that portion of the crime relating directly to the enforcement of the crime ...." By analogy, costs incurred to enforce the anti-pollution laws should not be treated as state mandated programs entitled to reimbursement by the state.

The Court also disagrees with the Operators' contention "the collection of trash and the enforcement of statutes and regulations intended to prevent pollution" constitute "programs" for purposes of subvention. (Opp. p. 9.) As noted above, these conditions enforce a prohibition rather than initiate or upgrade "classic" or "peculiarly governmental functions[s]" like the firefighting services affected by the executive order in *Carmel Valley*. (*Id.*) Because the requirements were implemented to prevent pollution (enforce a ban on pollution) rather than to provide a service to the public, it is difficult to regard them as "programs that carry out the governmental function of providing services to the public."

Addressing *County of Los Angeles'* second alternative definition of "programs," it is a closer question whether the permit's receptacle and inspection requirements are "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra*, 43 Cal.3d at 56.) There is no doubt the permit (which only applies to local governments) "uniquely" imposes the receptacle and inspection requirements on local governments. However, the relevant "state policy" implemented by the permit is the federal and state law prohibition against unlawful discharges. That policy "appl[ies] generally to all residents and entities in the state." In contrast with the upgrade in firefighter clothing and equipment mandated by the executive order in *Carmel*

Valley, this is not the type of policy the voters intended to embrace in the ballot measure giving rise to section 6.

The NPDES policy implemented by the permit effectuates laws of general application that prohibit both public and private entities from discharging contaminants into the waterways except as specified in an NPDES permit. By its terms, the Operators' NPDES permit is the means by which the state ensures that public entities abide by the same prohibitions against contaminated discharges that the law imposes on private parties. Although it is true that, like the workers compensation statute at issue in *County of Los Angeles*, the NPDES permit is "administered by the state," that does not necessarily mean the state has forced the expense of its program or policy onto the local governments. (*Id.* at 58.)

Moreover, just because the requirements are "unique" to the local governments and cause them to incur costs does not mean the local entities are necessarily entitled to reimbursement from the state. Whereas a private industrial discharger has considerable power to control its operations and employees to prevent contaminated discharges, municipalities cannot prevent contaminated discharges without inducing or policing the public to refrain from harmful conduct. It is therefore inevitable that the Operators' NPDES permit includes measures "unique" to local governments such as the receptacle and inspection requirements at issue here. Indeed, because the anti-pollution laws, the permit and the policies behind them implement a ban on unlawful discharges that applies to both public and private entities, the state must, as a practical matter, impose "unique" requirements on local governments to ensure that their required compliance is "indistinguishable . . . from private employers." (*Id.*)

Given that the "state policy" advanced by the permit is to enforce a ban of general application rather than to initiate or expand waste collection and/or inspection services, it is not reasonable to interpret the receptacle and inspection requirements as a policy (or program) initiated by the State Water Board "to 'force' [trash collection and inspection] programs on localities." (*Id.*) As noted in *County of Los Angeles*, "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, *not for*

expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57, emphasis added.)

In this case, the costs incurred by the local governments are an "incidental impact of laws [and policies] that apply generally to all state residents and entities" rather than the result of a state mandate shifting the costs of a state initiated program to the local governments. (*County of Los Angeles,* 43 Cal.3d at 57.) This Court finds the receptacle and inspection requirements are not state mandated programs subject to subvention and grants the petition for writ of mandate.

C. Petitioners' and Cross-Petitioners' Remaining Arguments Are Moot

Because the Court has determined the Operators are not entitled to reimbursement for the costs of complying with the permit's receptacle or inspection requirements, the parties' remaining arguments (as to whether the Operators had fee authority to levy service charges to pay for the trash receptacle requirement and inspection requirement) are moot.

V. Conclusion

For the reasons stated above, the Court GRANTS the Petition for Writ of Mandate and remands this matter to the Commission on State Mandates for proceedings consistent with this decision.

Dated: FEB 0 9 2018

AMY D. HOGUE, JUDGE

JUDGE OF THE SUPERIOR COURT

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

RULING ON SUBMITTED MATTER
- HEARING ON PETITION FOR WRIT OF MANDATE(POST REMAND)
- HEARING ON CROSS-PETITION FOR WRIT OF MANDATE

The Court, having previously taken the matter under submission on 01/31/18, issues its ruling in accordance with the "ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT" consisting of 14 pages, filed this date and incorporated herein by reference to the Court file.

Summary of the court's Ruling:

The petition for writ of mandate is granted. Cross-petitions are denied as moot.

Petitioner's exhibit 1 is ordered returned forthwith to the party who lodged it, to be preserved unaltered until a final judgment is rendered in this case and is to be forwarded to the court of appeal in the event of an appeal.

Administrative record to be picked up directly from Department 86 within 10 days from this order.

Counsel for petitioner is to prepare, serve, and lodge the proposed judgment within ten days. The Court will hold the proposed judgment at least ten days for objections.

MINUTES ENTERED
02/09/18
COUNTY CLERK

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

CLERK'S CERTIFICATE OF MAILING

I, the below-named Executive Officer/Clerk of the above-entitled court, do hereby certify that I am not a party to the cause herein, and that on this date I served the above dated minute order and ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT upon each party or counsel named below by placing the document for collection and mailing so as to cause it to be deposited in the United States mail at the courthouse in Los Angeles, California, one copy of the original filed/entered herein in a separate sealed envelope to each address as shown below with the postage thereon fully prepaid, in accordance with standard court practices.

Dated: February 9, 2018

Sherri R. Carter, Executive Officer/Clerk

By: F. Becerra, Deputy

Nelson Richard
Office of the Attorney General
2550 Mariposa Mall, Room 5090
Fresno, CA 93721

MINUTES ENTERED
02/09/18
COUNTY CLERK

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

Howard Gest
Burhenn & Gest LLP
624 South Grand Avenue, Ste 2200
Los Angeles, CA 90017

MINUTES ENTERED
02/09/18
COUNTY CLERK

DECLARATION OF SERVICE BY U.S. MAIL

Case Name: *Department of Finance, et al. v. Commission on State Mandates*
No.: **BS130730**

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar, at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service with postage thereon fully prepaid that same day in the ordinary course of business.

On May 16, 2018, I served the attached **AMENDED PROPOSED JUDGMENT** by placing a true copy thereof enclosed in a sealed envelope in the internal mail collection system at the Office of the Attorney General at 2550 Mariposa Mall, Room 5090, Fresno, CA 93721, addressed as follows:

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I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on May 16, 2018, at Fresno, California.

Lynda Gonzales	Lynda Gonzales
Declarant	Signature

SA2010101245
95258154

KeyCite Yellow Flag - Negative Treatment
Distinguished by Mullins v. Henderson, Cal.App. 1 Dist., June 26, 1946

196 Cal. 43, 235 P. 1004

In the Matter of the Issuance of the Bonds of OROSI PUBLIC UTILITY DISTRICT, in the County of Tulare, State of California. OROSI PUBLIC UTILITY DISTRICT, Respondent,
v.
J. F. MCCUAIG, Appellant.

Supreme Court of California.
Sac. No. 3682.
April 15, 1925.

[1]
PUBLIC UTILITY DISTRICTS—PUBLIC IMPROVEMENTS—BOUNDARIES—BENEFITS—RIGHT TO HEARING.
The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature.

[2]
ID.—FORMATION OF DISTRICTS—GENERAL PLAN—DETERMINATION OF BOUNDARIES—HEARING ON BENEFITS.
Instead of creating a district to be assessed for public improvements by a special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission, or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included, as to whether their lands should be assessed at all and as to the amount of the tax to be assessed against them.

[3]
ID.—SPECIAL ASSESSMENTS—RIGHT OF TAXPAYER TO NOTICE.
Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and notice and opportunity must be provided as an essential part of the statutory provision.

[4]
ID.—ASSESSMENT DISTRICTS—QUASI-MUNICIPAL CORPORATIONS—DIFFERENCE IN.
There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, which practically authorizes property owners without notice to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality.

[5]
ID.—SPECIAL ASSESSMENT DISTRICTS.
Districts such as those formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby are created for the purpose generally of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation, and the exactions which they may enforce are in the nature of assessments, or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement; and such districts are not municipal corporations in the contemplation of the constitution.

[6]
ID.—MUNICIPAL CORPORATIONS—ARTICLE XI, SECTION 6, CONSTITUTION.
The provision in article XI, section 6 of the constitution that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed a mode under which all municipal corporations must be organized and the powers they can exercise.

[7]

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ID.—AMENDMENT OF 1911 TO ARTICLE XI OF CONSTITUTION.

The amendment of 1911 to article XI of the constitution (Const., art. XI, sec. 19), providing that any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication, definitely settled and removed all doubt as to the right of cities and towns to own and operate the kind of public utilities therein designated.

[8]

ID.—PUBLIC UTILITY DISTRICTS IN UNINCORPORATED TERITORY—ACT OF 1921—PURPOSE OF.

The intention of the legislature in passing the act of 1921 (Stats. 1921, p. 906), providing for the organization of public utility districts in unincorporated territory, was to make provision whereby the inhabitants of the state living outside the limits of cities and towns may serve their own purposes through the operation of the same kind of utilities, as the constitution provides that municipalities may establish for themselves, and it was the intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

[9]

ID.—OROSI PUBLIC UTILITY DISTRICT—POWERS.

It is not necessary that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have been organized. And it may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform.

[10]

ID.—MUNICIPAL CORPORATIONS—OBJECT OF.

The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such; and it is apparent that the legislature had in view such association of the people living in the outlying districts when it enacted the statute for the formation of public utility districts in the unincorporated territory of the state, and it thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which tend to promote the general welfare of the people of the state, and the power of the legislature so to do cannot be denied.

[11]

ID.—MUNICIPALITIES—FUNCTIONS—TAXATION.

While a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes; and any tax thereafter levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

[12]

ID.—ACT OF 1921—CONSTITUTIONALITY OF.

As the act of 1921, providing for the incorporation of public utility districts in unincorporated territory (Stats. 1921, p. 906), provides for the formation of a public or *quasi*-municipal corporation, inhabitants and property owners of which are subject to tax by the district for municipal purposes only, the act is not unconstitutional.

[13]

ID.—FORMATION OF PUBLIC UTILITY DISTRICTS—DUE PROCESS—NOTICE AND HEARING FOR LAND OWNER.

The requirement as to due process of law does not give a property owner an absolute right to notice and hearing

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before his property may be included within the limits of a municipality or *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit; and a property owner is not entitled to a notice and opportunity to be heard on the question of benefits to his land before it can be included within the boundaries of a public utility district created under the act of 1921 (Stats. 1921, p. 906).

APPEAL from a judgment of the Superior Court of Tulare County. W.B. Wallace, Judge. Affirmed.

The facts are stated in the opinion of the court.

***46** Walter C. Haight for Appellant.
Fred C. Scott and Leroy McCormick for Respondent.
Edward F. Treadwell, *Amicus Curiae.*

WASTE, J.

The Orosi Public Utility District was organized under the provisions of an act providing for the incorporation ***47** of public utility districts in unincorporated territory. (Stats. 1921, p. 906.) The board of directors of the district brought an action in the superior court of the county of Tulare to determine the validity of an $18,000 bond issue voted by the people of the district for the purpose of raising money for developing, pumping, storing, and distributing water. John F. McCuaig, a resident freeholder and taxpayer, answered the petition, alleging that all proceedings in relation to the issuance of the bonds were null and void for the reason that the utility district was not duly organized and incorporated, because the act of the legislature under which it was formed was unconstitutional. The trial court determined all issues in favor of the due organization and incorporation of the district, and the legality of the bonds, and entered its decree affirming their validity. The taxpayer has appealed on the judgment-roll alone.

The act providing for the incorporation of public untility districts in unincorporated territory states that whenever electors equal in number to fifteen per cent of all the votes cast for all candidates for Governor within such unincorporated territory at the last preceding general election, at which a Governor was elected, desire to organize such a district, they shall sign a petition setting forth the boundaries of the proposed district, and present same to the board of supervisors of the county in which the unincorporated territory is situated. The board of supervisors shall, within fifteen days after the presentation of the petition, publish a copy thereof, together with a statement that the proposition involved therein, which shall be briefly specified, will be submitted by it to the qualified electors of the unincorporated territory at a special election, after publication of the required notice. Within five days after the result of the election is ascertained, if it appears that a majority of the votes cast is in favor of the incorporation of the district, the board of supervisors shall so declare, and shall in a proper order state the name and boundaries of the district, and that such utility district is formed under the provisions of the act (*supra*). After the date of the filing of certain certificates with the Secretary of State, the territory described in the petition shall be deemed incorporated as a public utility district, under the provisions of the statute, with all the rights, privileges, and powers set forth therein.

***48** Under the provisions of the act, any public utility district so formed shall have power to have perpetual succession, to sue and be sued, to adopt and alter a seal, to acquire, hold, and dispose of real and personal property necessary to the full and continued exercise of its power, to acquire, construct, own, operate, control, or use works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter, and to do all things necessary or convenient to the full exercise of the powers granted by the act. Whenever there is a surplus of water, light, heat or power above that which may be required by the inhabitants or municipalities within the district, the district may sell or otherwise dispose of the surplus outside of the district. It also may exercise the right of eminent domain for the condemnation of private property for public use, and may construct its works across or along any street or highway, or over the lands and property of the state, and in that connection is given the same rights and privileges as are granted to municipalities. It may borrow money and issue bonds or other evidence of indebtedness within certain limitations, levy and collect, or cause to be levied or collected, taxes for the purpose of carrying on its operations and paying its obligations, and may make contracts, employ labor, and do all acts necessary or convenient for the full exercise of the powers granted to it, which are to be exercised by a board of

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directors elected by the voters in the district, which board may act by ordinance or resolution signed by its president and attested by the secretary. The act further provides (section 39) that if from any cause the revenues of the district shall be inadequate to pay the principal or interest on any bonded debt as it becomes due, or if funds are needed to carry out the objects and purposes of the district, which cannot be provided for out of the revenues of the district, the board of directors may levy a tax for that purpose on the taxable property situated in the district. It may by ordinance, the provisions of which shall be conformable to the general law, provide the mode and manner of assessing, correcting or equalizing assessments, and the levying and collecting of taxes which may be by actions or legal proceedings; or it may elect to avail itself of the assessment ***49** made by the county assessor of the county in which the district is situated. All taxes levied under the provisions of the act are a lien on the property on which they are levied, and the enforcement of the collection of the taxes may be had in the same manner and by the same means as provided by law for the enforcement of liens for state and county taxes.

The act of 1921, as originally enacted, and as it stood when the respondent district was formed, did not provide for any notice of the hearing of the petition for the formation of the district. The property owners within the proposed district were not given an opportunity to protest against having their property included within its boundaries, nor were they accorded an opportunity to be heard as to whether their property was or could be benefited by being included within such boundaries. For that reason, the appellant takes the position that the act is unconstitutional and in contravention of the fourteenth amendment of the federal constitution, and contrary to similar provisions in the constitution of the state, in that it provides for a taking of his property without due process of law. It follows, he argues, that all proceedings taken for the organization of the district, and the subsequent proceedings relating to the issue of the bonds, which are dependent upon the validity of the organization of the district, are null and void, and, as a necessary consequence, the bonds sought to be validated by this proceeding are invalid. After the proceedings involved in this case were had, the act was amended (Stats. 1923, p. 299) to provide for a notice and a hearing by the board of supervisors of the petition for the formation of a utility district. It is now provided that the board must hear all competent and relevant testimony offered in support of, or in opposition to, the petition. It shall make such changes as it may deem advisable in, and shall define and establish the proposed boundaries. At the time the proceedings for the formation of the Orosi District were taken no discretionary power whatever was vested in any legislative body. Upon presentation of the petition therefor, the board of supervisors was compelled to immediately submit the question of the formation of the district to the voters residing within the described limits. The question whether or not the exact territory described in the petition should be included in, and constitute the utility district, was made to depend solely ***50** upon an affirmative vote of the body of the electorate residing therein. Appellant contends that to permit a district, formed under such a statute, to levy a tax on property for nonpayment of which the property may be sold, is to subject the property owner to deprivation of his property without due process of law.

It is not contended that any of the steps leading to the formal declaration by the board of supervisors of Tulare County that the respondent district was in fact created were omitted, or that they were not properly taken. The sole question to be determined on appeal relates to the constitutionality of the act under which the district was created. Our first consideration is, therefore, directed to the nature of the district which may be formed under its provisions. If it be one formed for the primary purpose of assessing upon the lands within its boundaries benefits to be derived by the lands from some public improvement for which purpose the district is created, we must hold with appellant, and declare the act unconstitutional as violating the "due process clause" of the federal constitution. Such districts can be legally created in but two ways, neither of which was followed in this case.

(1) The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature. (*Tarpey v. McClure,* 190 Cal. 593, 604 [213 Pac. 983]; *Miller & Lux, Inc., v. Drainage Dist.,* 182 Cal. 252, 265 [187 Pac. 1041]; *Fallbrook Irr. Dist. v. Bradley,* 164 U.S. 112, 174 [41 L. Ed. 369, 17 Sup. Ct. Rep. 56, see, also, Rose's U. S. Notes].)

(2) Instead of creating the district by special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included. ***51** If the district be formed under this method of delegated power, it is essential that the property owners whose property is to be included shall be given a hearing upon the question whether their lands should be assessed at all, that is to say, whether or not such lands would be benefited by the proposed improvement, and also a hearing upon the amount of the tax to be assessed against the property. (*Spencer v. Merchant,* 125 U. S. 345, 356 [31 L. Ed. 763, 8 Sup. Ct. Rep. 921, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* p. 174; *Brookes v. City of Oakland,* 160 Cal. 423, 431 [117 Pac. 433]; *Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 261 [208 Pac. 304].)

(3) Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and that notice and opportunity must be provided as an essential part of the statutory provision. (*Security Trust Co. v. Lexington,* 203 U. S. 323, 333 [51 L. Ed. 204, 27 Sup. Ct. Rep. 87, see, also, Rose's U. S. Notes]; *Central of Georgia By. v. Wright,* 207 U. S. 127, 138 [12 Ann. Cas. 463, 52 L. Ed. 134, 28 Sup. Ct. Rep. 47].) The respondent district was not created by the legislature itself, and the act providing for its formation makes no provision for the submission of the question, as to what lands should be included within its boundaries, to any tribunal before which the property owners, whose lands were included in the petition, might have a hearing.

(4) The rule laid down in *Fallbrook Irr. Dist. v. Bradley, supra,* which has been so constantly adhered to by this court in its application to assessment districts formed for the purpose of assessing upon private lands the benefits to accrue from the particular public improvement for the construction of which the district was formed (*Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 267 [208 Pac. 304]), does not apply to every kind of public or *quasi*-public corporation. There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, and which practically authorizes property owners, without notice, to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality. (***52** *People v. Ontario,* 148 Cal. 625, 632 [84 Pac. 205]; *Wilcox v. Engebretsen,* 160 Cal. 288, 293 [116 Pac. 750].) That distinction, it was pointed out in the latter case, is to be made between the proceedings of a board, acting in pursuance of some delegated legislative authority in creating a political subdivision of the state, as a county or a city, a proceeding which does not directly affect private property, and proceedings which do directly charge or affect such property. The respondent takes the position that it is a public corporation, and that any burden, by way of taxation, to be laid on the inhabitants residing within its boundaries is but a tax for municipal purposes. In view of the distinction, pointed out by this court (*supra*), between the acts providing for the formation, on the one hand, of public or *quasi*-public corporations, in the nature of taxing districts, and of municipal corporations, on the other, and in view of the contention of the respondent, the problem which confronts us lies in determining whether or not the act under which the respondent district was created provides for the organization of a district which is in its nature a public corporation, the inhabitants and property owners of which are subject to taxation for municipal purposes without any hearing as to the benefits to be derived from the creation and conduct of such a corporation, or is an assessment district created for the primary purpose of assessing upon private lands the benefits to be derived thereby from the public improvements for which purpose the district is formed. (*Miller & Lux v. Board of Supervisors, supra,* p. 267.)

(5) The purposes for which the Orosi District was formed, the appellant contends, are not municipal, and a district formed for such purposes does not possess the essential characteristics of a municipal corporation. If the authorities cited by him were strictly in point, there would be an end to the controversy; but they are not. They deal with questions arising in connection with districts formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby. (*People v. Reclamation Dist. No. 551,* 117 Cal. 114, 121 [48 Pac. 1016]; *People v. Levee Dist. No. 6,* 31 Cal. 30, 34 [63 Pac. 676]; *People v. Sacramento Drainage Dist.,* 155 Cal. 373, 382 [103 Pac. 207]; *Pixley v. Saunders,* 168 Cal. 152,

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160 [141 Pac. 815]; *In re Werner,* 129 Cal. 567, 572 [62 Pac. 97].) When ***53** related to that class of districts, the cases cited are clearly in point. The improvements contemplated by the acts under which they were formed cannot be considered "municipal purposes." (*In re Madera Irr. Dist.,* 92 Cal. 296, 344 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 675] [on rehearing].) One of the distinguishing features of such districts is that they are created for the purpose, generally, of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation. They are merely special state organizations for state purposes, created to perform certain work which the policy of the state requires or permits to be done, and to which the state has given a certain degree of discretion in making the improvements contemplated. The other distinguishing feature is that the exactions which such districts may enforce in order to carry out their purposes are in the nature of assessments or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement. (*Pasadena Park Imp. Co. v. Lelande,* 175 Cal. 511, 512 [166 Pac. 341].) Such an exaction is generally in the form of a special assessment, but even if it is in the form of a tax it is nevertheless an assessment for local benefits. (*City of San Diego v. Linda Vista Irr. Dist.,* 108 Cal. 189, 199 [41 Pac. 291].)

Districts of the nature just discussed are not municipal corporations in the contemplation of the constitution. (*People v. Sacramento Drainage Dist., supra,* p. 382; *Reclamation Dist. No. 551 v. County of Sacramento,* 134 Cal. 477, 478 [66 Pac. 668].)

(6) But the provision in article XI, section 6, that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed the mode under which all municipal corporations must be organized and the powers they can exercise. Of interest in this connection is the language of the court in *In re Madera Irr. Dist.,* 92 Cal. 296 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 272], where, at page 317, it says: "Such corporations are but the agents or representatives of the state in the particular locality in which they exist. They are organized for the purpose of carrying out the purposes of the legislature in its desire to provide ***54** for the general welfare of the state, and in the accomplishment of which legislative convenience or constitutional requirements have made them essential. Although in this state the legislature is required to provide such agencies under general laws, it is authorized, under its general power of legislation, to invest such corporations, when created, with the same powers which, without such restriction, it could itself have exercised; and in providing for such organizations it need confer upon them only such powers as, in its judgment, are proper to be exercised by them in the discharge of the particular functions of government which may be conferred upon them. Being the representatives of the legislature in the various localities of the state, the requirements for organization, as well as the powers to be exercised, vary with the character of the purpose for which they may be created. Hence the general laws which the legislature may enact for the organization of public corporations may be as numerous as the objects for which such corporations may be created. For each of these objects the law is the same, but there would be a manifest impropriety in requiring that the organization of a levee district or an irrigation district should be conducted in the same manner as the organization of a corporation for the management of a public park or the control of the school department. Whether the districts to which such general laws are applicable, or in which the people thereof may avail themselves of the privilege conferred, be many or few, is immaterial. Even if there be but a single district to which the law is applicable, at the time of its enactment, the legislature would be justified, under its legislative power, to pass general laws in making such provision for that district. Whenever a special district of the state requires special legislation therefor, it is competent for the legislature, by general law, to authorize the organization of such district into a public corporation, with such powers of government as it may choose to confer upon it. It is not necessary that such public corporation should be vested with all governmental powers, but the legislature may clothe it with such as, in its judgment, are proper to be exercised within and for the benefit of such district. Being created for the purpose of discharging only one public purpose, it is not requisite that it have power not necessary therefor, or which would be appropriate to a ***55** corporation organized for some other purpose. Neither is it requisite that such corporation should have legislative or judicial powers conferred upon it. It may be organized for the mere purpose of exercising executive and administrative functions, with the added power of making such prudential rules and regulations as may be necessary for the exercise of the particular functions entrusted to its charge."

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(7) With this power of the legislature understood, the nature of the districts contemplated by the act under which the Orosi Public Utility District was created is more clearly discerned. In 1911 the constitution of California was amended to provide that "any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication. Such works may be acquired by original construction, or by the purchase of existing works, including their franchises, or both." (Const., art XI, sec. 19.) The amended section is radically different from the one it replaced. In the statement of legislative reasons for the adoption of the amendment, printed and transmitted to the voters by the Secretary of State, it is stated that the conditions which prevailed in this state with regard to the operation of public utilities in cities at the time of the adoption of the new constitution of 1879 had materially changed, and an entirely new situation existed regarding the subject to which the section related. "The proposed amendment," the statement continues, "is designed to provide for conditions as they now are, and as they will doubtless continue to be in the future." After a discussion of the situation arising during the period following 1879, and a declaration that the result "has been a distinct disappointment, like many other attempts to remedy economic conditions by force of statutes, … the true remedy, so far as any substantial benefit to the people is concerned," the statement declares, "is to encourage the furnishing of these public necessities by municipal corporations themselves." The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the constitution.

(8) In enacting the statute here in question, the legislature has made provision whereby the inhabitants of the state living outside the limits of cities and ***56** towns may serve their own purposes through the operation of the same kind of utilities, when organized for that purpose.

That such was the intention of the legislature may be gleaned from a reading of the provision declaring the purposes for which public utility districts may be created in unincorporated territory. They are the acquisition, construction, and use of works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter. It has the power to do all things necessary or convenient to the full exercise of the powers granted by the act. It is significant that, when the legislature came to pass the act extending to the inhabitants outside of incorporated cities and towns the privileges in regard to the acquisition and use of their own public utilities that are granted by the state constitution to municipalities, it should have followed so closely the language of the constitutional amendment of 1911 in the statement of the purposes for which the districts may be created. We are convinced that it was its intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

"A city or purely municipal corporation is perhaps the highest type of corporation created for municipal purposes, because it is a miniature government, having legislative, executive and judicial powers, but there is another class of corporation, such as counties, school districts, road districts, etc., which, though varying in application and peculiar features, are but so many agencies or instrumentalities of the state to promote the convenience of the public at large, and are, in the broadest use of the term, for municipal purposes." (*Cook v. Port of Portland,* 20 Or. 580, 583 [13 L. R. A. 533, 27 Pac. 263].)

(9) It is not necessary, therefore, that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have ***57** been organized. (*In re Madera Irr. Dist., supra.*) It may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform. (*San Francisco v. Canavan,* 42 Cal. 541, 552.)

(10) The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such. (*Union Stone Co. v. Board of Freeholders of*

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Hudson Co., 71 N. J. Eq. 657, 664 [65 Atl. 466, 469]. See, also, *Wilson v. Board of Trustees,* 133 Ill. 443, 464 [27 N. E. 203].) It is quite apparent to us that the legislature had in view such association of the people living in the outlying districts, when it enacted the statute providing for the formation of public utility districts in the unincorporated territory of the state. It thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which, from common experience, we know tend to promote the general welfare of the people of the state. That it had the power to do so cannot be denied. While the proposed constitutional amendment was pending in 1911, this court held that there was no provision in the state constitution which either expressly or by implication forbade the acquisition, ownership, or operation of public utilities by a municipality, or which prohibited the legislature from granting a municipality the power to acquire, own, and operate them. (*Clark v. Los Angeles,* 160 Cal. 30, 46 [116 Pac. 722].) Activities, once regarded as being of a strictly private nature, are now considered municipal affairs, e. g., the sale and distribution of electrical energy manufactured by a city, the supplying of water to its own inhabitants or to outside territory, the construction of a reservoir by a city on its own land and to be used for the benefit of its inhabitants, and the establishment and operation of transportation service. (*Los Angeles G. & E. Corp. v. Los Angeles,* 188 Cal. 307, 317 [205 Pac. 125]; *Heilbron v. Sumner,* 186 Cal. 648, 651 [200 Pac. 409]; ***58** *South Pasadena v. Pasadena Land & Water Co.,* 152 Cal. 579, 594 [93 Pac. 490]; *Williams v. City of Vallejo,* 36 Cal. App. 133, 139 [171 Pac. 834]; *United Railroads v. San Francisco,* 249 U. S. 517, 520 [63 L. Ed. 739, 39 Sup. Ct. Rep. 361, see, also, Rose's U. S. Notes Supp.].) The people of the state, by the amendment to the constitution, placed other public utilities in the same category.

(11) We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes. (28 Cyc. 125.) Any tax, therefore, levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

The conclusion we have reached, on the general consideration of the act under which the respondent district was formed, is confirmed by an examination of the provision of the statute relating to the necessary revenue for conducting the affairs of such public corporations. It is provided (section 38) that only revenue-producing utilities shall be acquired, owned, or operated, "the intention being … that each public utility owned and operated by the district shall be self-sustaining." To that end, it is provided that, so far as possible, the board of directors shall fix such charges for commodities or service furnished by its revenue-producing utilities as will pay the administrative expenses of the government of the district, the operating cost of the utilities, the interest on any bonded indebtedness, and, in addition, provide a sinking fund for the retirement of the principal of the debt, and an appropriate fund for repairs, replacements and betterments. These provisions clearly establish the contention that the essential purpose of the act is to form a *quasi*-municipal corporation which may acquire and operate public utilities and pay for their operation from ***59** rates to be paid by those enjoying the service. When the cost of any public utility to be acquired, completed, or constructed can be paid out of the revenues of the district derived from the operation of its public utilities, in addition to the other necessary expenses of the district, the board of directors must determine the cost of such utility, the method and manner of payment therefor, and submit the question of its acquisition upon such terms to the electors. If the cost cannot be met in that way, a district bonded indebtedness may be incurred in the manner provided by the act. It is only when the revenues of the district shall be inadequate to pay the principal or interest of any bonded debt, as it becomes due, that the board of directors must, or, when funds are needed to carry out the objects and purposes of the district which cannot be provided for out of its revenues, that the board of directors may levy a tax for such purposes (section 39). These provisions make it clear that the "primary purpose" of the act (*Miller & Lux v. Board of Supervisors, supra*) was

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not that of assessing upon private lands the benefits to be derived from the acquisition of public utilities.

(12) From our conclusion that the act, under which the respondent district was created, provides for the formation of a public or *quasi*-municipal corporation, the inhabitants and property owners of which are subject to tax by the district for municipal purposes only, it follows that the attack here made on the constitutionality of the act must fail. The public utility districts provided for by its terms have as their sole purpose the welfare and prosperity of the people of the state—matters which rest within the will of the people themselves. In *People v. Town of Ontario,* 148 Cal. 625 [84 Pac. 205], this court considered the constitutionality of the act providing for the annexation of territory to incorporated towns and cities. (Stats. 1889, p. 358.) By the terms of the act, upon receipt of a proper petition, signed by the requisite number of electors of the municipality and exactly describing the territory desired to be annexed, the legislative body of the municipality is compelled to submit the question of annexation to the electors of the town, and also to those of the outside territory. No notice, or opportunity to be heard on the question, is afforded residents or property owners of either the town or the territory ***60** which it is proposed to annex, and the legislative body has no power to change or fix the boundaries. The sole question whether or not the exact territory described in the petition shall be annexed and thereby subjected to the burden of taxation for municipal purposes is made to depend entirely upon an affirmative vote of the electors at the election called for the purpose. That is the exact situation as to the boundaries of public utility districts in unincorporated territory, created under the act as it was when the respondent district was formed. The court pointed out the "obvious distinction" between those acts practically authorizing property owners, without notice, to place burdens upon the property of others for the sole purpose of improving their own property, and one providing for the formation of municipalities. It held that, as the legislature cannot itself declare the precise boundaries of a municipality, for it can act in such matter only by general laws, it might, in the absence of any constitutional inhibition, confer that power on the electors of the district to be affected, such declaration to be made at an election held after due notice. (See, also, *People ex rel. Rhodes v. Fleming,* 10 Colo. 553 [16 Pac. 298]; *Ford v. North Des Moines,* 80 Iowa, 626 [45 N. W. 1031].) The constitution does not attempt to limit the power of the legislature in providing for the determination of the question as to what shall constitute municipal territory. Consequently, in the matter of forming cities or towns, questions as to population, extent, and character of territory to be included are matters left entirely with the legislative department. (*People ex rel. Russell v. Town of Loyalton,* 147 Cal. 774, 778 [82 Pac. 620].)

(13) In the instant case the district has been formed within the strict letter of the law, and in the manner provided by the legislative enactment. We have been cited to no authorities which hold that the requirement as to due process of law gives a property owner an absolute right to notice and hearing before his property may be included within the limits of a municipality or a *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit. Appellant was not, therefore, entitled to notice and opportunity to be ***61** heard on the question of benefits to his land before it could be included within the boundaries of the respondent district. The act under which it was formed directs that in the event it becomes necessary to levy a tax for carrying out the objects and purposes of the district, the board of directors may, by ordinance, provide the manner and mode of assessing, and of correcting and equalizing assessments upon, the taxable property situated within the district, and may provide for the collection of delinquent taxes by actions or legal proceedings, *provided* that the provisions of such ordinance shall be conformable to general law, or it may accept the assessment for district purposes made by the county assessor (section 39). Whatever may be the method of assessment that shall be adopted, if provision be made for the correction of errors committed by the assessor, through a board of revision or equalization, with power to hear, after notice, complaints respecting the justice of the assessment, the proceeding by which the valuation is determined, though it may be followed, if the tax is not paid, by a sale of the delinquent's property, is due process of law. (*Hagar v. Reclamation Dist. No. 108,* 111 U. S. 701, 710 [28 L. Ed. 569, 4 Sup. Ct. Rep. 663, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* at p. 175; *People v. Town of Ontario, supra,* at p. 633.)

We deem it unnecessary to further discuss the decisions of this court and those of other jurisdictions so strongly relied on by appellant. Many of them have already been

referred to and their distinguishing features pointed out. We have carefully examined every one of them, and many others, and have not found one that is exactly in point. The reason for the dearth of precise judicial decision on the important question we have been called on to decide in this case is that public utility districts are new to the law of California, and the furnishing of what may be called public utility service is an extension of municipal functions of comparatively recent times. After a critical study of the authorities, we have found nothing that destroys our confidence in the conclusion we have reached in this case. The case cited by appellant, and which, on first reading, seems nearest in point to the question here involved (*People ex rel. Amestoy Estate Co. v. Van Nuys Lighting Dist.,* 173 Cal. 792 [Ann. Cas. ***62** 1918D, 255, 162 Pac. 97]), is readily distinguishable on the facts given by the court as the foundation for its decision.

The judgment of the lower court is affirmed.

Myers, C. J., Seawell, J., Richards, J., Shenk, J., Lawlor, J., and Lennon, J., concurred.

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44 Cal.3d 830, 750 P.2d 318, 244 Cal.Rptr. 677, 45 Ed. Law Rep. 321

LUCIA MAR UNIFIED SCHOOL DISTRICT et al., Plaintiffs and Appellants,
v.
BILL HONIG, as Superintendent, etc., et al., Defendants and Respondents

No. S000064.
Supreme Court of California
Mar 14, 1988.

SUMMARY

School districts filed a test claim with the Commission on State Mandates to determine whether Ed. Code, § 59300 (requiring school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped), imposed on them a state-mandated "new program or higher level of service" for which the state must provide reimbursement under Cal. Const., art. XIIIB, § 6. The commission found that § 59300 did not impose a new program or higher level of service. The districts filed a petition for writ of mandate, declaratory relief, and restitution against the commission, the State Superintendent of Public Instruction, and the Department of Education. The trial court affirmed the commission's decision. (Superior Court of San Luis Obispo County, No. 60152, Walter W. Charamza, Judge.[*]) The Court of Appeal, Sixth Dist., No. B019083, affirmed the trial court's judgment.

The Supreme Court reversed the judgment of the Court of Appeal. It held that § 59300 does impose a new program or higher level of service but that remand to the commission was necessary to determine whether the provision was state-mandated. However, the court held, the superintendent and the department did not act in excess of their authority in deducting the amounts owed by the districts from funds appropriated by the state for their support after the districts refused to pay invoices submitted to them pursuant to § 59300.

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
Schools § 4--School Districts; Financing; Funds--State Reimbursement for New Programs and Higher Levels of Service--Cost of Educating Severely Handicapped at State Schools.
Ed. Code, § 59300 (requiring school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped), imposes on school districts a "new program" within the meaning of Cal. Const., art. XIIIB, § 6 (providing reimbursement to local agencies for state-mandated new programs or higher levels of service). Thus, in a test claim filed by school districts, the Commission on State Mandates erred in finding to the contrary; however, remand to the commission was necessary to determine whether § 59300 was a state mandate.

(2)
State of California § 11--Fiscal Matters--Reimbursement of Local Agencies for State-mandated New Programs or Higher Levels of Service.
The intent of Cal. Const., art. XIIIB, § 6, was to preclude the state from shifting to local agencies the financial responsibility for providing public services, in view of restrictions imposed on the taxing and spending power of local entities by Cal. Const., art. XIIIA.

[See **Cal.Jur.3d,** Municipalities, § 361; **Am.Jur.2d,** Municipal Corporations, Counties, and Other Political Subdivisions, § 582.]

(3)
State of California § 11--Fiscal Matters--Deduction From School Appropriations of Amounts Owed State.
Where, following enactment of Ed. Code, § 59300 (requiring school districts to contribute part of cost of educating pupils from district at state schools for severely handicapped), school district refuse to pay invoices sent them by the state pursuant to § 59300, the State Superintendent of Public Instruction and the Department of Education did not act in excess of their authority in deducting the amounts owed by the districts from funds appropriated by the state for their support. Under the circumstances the method of collection was left to the

reasonable discretion of the department, and, in view of the fact that no test claim had been filed when the school districts failed to pay the invoices, the method of collection the department chose was not unreasonable.

COUNSEL

Frank J. Fekete, Peter C. Carton, Joanne A. Velman, Stephen L. Hartsell, Dwaine L. Chambers and Roger R. Grass for Plaintiffs and Appellants.

Joseph R. Symkowick, Roger D. Wolfertz, Joanne Lowe, John K. Van de Kamp, Attorney General, N. Eugene Hill, Assistant Attorney General, and Henry G. Ullerich, Deputy Attorney General, for Defendants and Respondents.

MOSK, J.

Section 59300 of the Education Code requires a school district to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped. We must determine if that section imposes on a district a state-mandated "new program or higher level of service" for which the state must provide reimbursement under section 6 of article XIIIB of the California Constitution.[1] The constitutional provision, adopted by initiative in 1979, declares, with exceptions not relevant here, that "[w]henever the Legislature ... mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service. ..."

The resolution of the question before us turns on whether the contributions made by a district pursuant to section 59300 are used to fund "a new program or higher level of service" and, if so, whether the statute "mandates" that a district make the contribution set forth therein. We conclude that the contribution required by section 59300 is utilized to fund a "new program" as defined in the constitutional provision, but that it is not clear from the record whether districts are "mandated" to pay these costs. The matter will therefore be remanded to the Commission on State Mandates to make that determination.

The State Department of Education (department) operates schools for severely handicapped students, including schools for the deaf (§ 59000 et seq.), the blind (§ 59100 et seq.), and the neurologically handicapped (§ 59200 et seq.). Although prior to 1979, school districts were required by statute to contribute to the education of pupils from the districts at the state ***833** schools (former §§ 59021, 59121, 59221), these provisions were repealed in that year and on July 12, 1979, the state assumed the responsibility for full funding. (Stats. 1979, ch. 237, § 3, p. 493.) This responsibility existed when article XIIIB became effective on July 1, 1980 (art. XIIIB, § 10), and continued until section 59300 became effective on June 28, 1981. (Stats. 1981, ch. 102, § 17, p. 703.)

Section 59300 represents an attempt by the state to compel school districts to share in these costs. The section provides, "Notwithstanding any provision of this part to the contrary, the district of residence of the parent or guardian of any pupil attending a state-operated school pursuant to this part, excluding day pupils, shall pay the school of attendance for each pupil an amount equal to 10 percent of the excess annual cost of education of pupils attending a state-operated school pursuant to this part."[2]

Starting in 1981, the department attempted to collect the contributions called for in the section by sending invoices to the school district superintendents. When the invoices were not paid, their amount was deducted from the appropriations made by the state to the districts for the support of the schools.

The Government Code sets forth a procedure to determine whether a statute imposes state-mandated costs on a school district or other local agency under article XIIIB. (Gov. Code, § 17500 et seq.). The district must file a test claim with the Commission on State Mandates (commission) which, after a hearing, decides whether the statute mandates a "new program or increased level of service." (*Id.*, §§ 17521, 17551, 17556.) If a claim is found to be reimbursable, the commission must determine the amount to be reimbursed. (*Id.*, § 17557.) The code specifies the procedure to be followed by a local agency to obtain reimbursement if the commission has determined that reimbursement is due. (*Id.*, § 17558 et seq.) If the Legislature refuses to appropriate money to satisfy a mandate found to be reimbursable by the commission, a claimant may bring an action for declaratory relief to enjoin enforcement of the mandate. (*Id.*, § 17612, subd. (b).)[3] In the event the commission finds against the local agency, it may bring a proceeding in administrative mandate under section 1094.5 of the Code of Civil Procedure to challenge the commission's determination. (***834** Gov. Code, § 17559.) The procedure provided in

the code is the exclusive means by which a local agency may claim reimbursement for mandated costs. (*Id.*, § 17552.)

In 1984 plaintiff Lucia Mar Unified School District and other school districts (plaintiffs) filed a test claim before the commission,[4] asserting that section 59300 requires them to make payments for a "new program or increased level of service," and that they are entitled to reimbursement pursuant to section 6 of article XIIIB. The commission denied the claim, finding no reimbursable mandate because, although section 59300 increased plaintiffs' costs for educating students at state-operated schools, it did not impose on the districts a new program or higher level of service.

Plaintiffs then filed a petition for writ of mandate, declaratory relief, and restitution against the commission, the State Superintendent of Public Instruction (superintendent), and the department. They sought a declaration that section 59300 violates section 6 of article XIIIB, and prayed for orders to compel the commission to reverse its determination, and the superintendent and the department to reimburse them for the amounts withheld under the authority of section 59300. The trial court affirmed the commission's decision. It, too, held that section 59300 does not mandate a new program or higher level of service, finding that the section only calls for an "adjustment of costs."[5]

The court held, further, that it had no jurisdiction to issue orders to the superintendent to refund the sums withheld from plaintiffs because the commission's decisions may only be challenged by a proceeding in administrative mandate under section 1094.5 of the Code of Civil Procedure. (Gov. Code, §§ 17552, 17559.) Plaintiffs appealed. The Court of Appeal affirmed the judgment, reasoning that a shift in the funding of an existing program is not a new program or a higher level of service. It declined to rule whether restitution from the superintendent was an appropriate remedy.

([1a]) The commission argues before this court, as it did below, that section 59300 does not mandate a new program or a higher level of service. The superintendent and the department express no opinion as to the merits of plaintiffs' assertions, but argue that if we should find a reimbursable mandate, plaintiffs' remedy is to seek an appropriation from the Legislature rather than reimbursement from the department. ***835**

We recognize that, as is made indisputably clear from the language of the constitutional provision, local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state. In keeping with this principle, we recently held in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] that legislation requiring local governments and other employers to increase certain workers' compensation benefits did not invoke the subvention requirement because the state mandate did not provide for a "program." We reasoned that the additional expense to the local agency mandated by the legislation arose as an incidental impact of a law which applied generally to all state residents and entities, and this type of expense was not what the voters had in mind when they adopted section 6 of article XIIIB. (See also *City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484 [235 Cal.Rptr. 101].)

We defined a "program" as used in article XIIIB as one that carries out the "governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra*, 43 Cal.3d at p. 56.) Unquestionably the contributions called for in section 59300 are used to fund a "program" within this definition, for the education of handicapped children is clearly a governmental function providing a service to the public, and the section imposes requirements on school districts not imposed on all the state's residents. Nor can there be any doubt that although the schools for the handicapped have been operated by the state for many years, the program was new insofar as plaintiffs are concerned, since at the time section 59300 became effective they were not required to contribute to the education of students from their districts at such schools.

The fact that the impact of the section is to require plaintiffs to contribute funds to operate the state schools for the handicapped rather than to themselves administer the program does not detract from our conclusion that it calls for the establishment of a new program within the meaning of the constitutional provision. To hold, under

the circumstances of this case, that a shift in funding of an existing program from the state to a local entity is not a new program as to the local agency would, we think, violate the intent underlying section 6 of article XIIIB. That article imposed spending limits on state and local governments, and it followed by one year the adoption by initiative of article XIIIA, which severely limited the taxing power of local governments. ([2]) Section 6 was intended to preclude the state from shifting to local agencies the financial responsibility for providing public services ***836** in view of these restrictions on the taxing and spending power of the local entities. (See *County of Los Angeles, supra*, 43 Cal.3d at p. 61.) [6]

([1b]) The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of article XIIIB because the programs are not "new." Whether the shifting of costs is accomplished by compelling local governments to pay the cost of entirely new programs created by the state, or by compelling them to accept financial responsibility in whole or in part for a program which was funded entirely by the state before the advent of article XIIIB, the result seems equally violative of the fundamental purpose underlying section 6 of that article. [7] We conclude, therefore, that because section 59300 shifts partial financial responsibility for the support of students in the state-operated schools from the state to school districts - an obligation the school districts did not have at the time article XIIIB was adopted - it calls for plaintiffs to support a "new program" within the meaning of section 6. [8]

The question remains whether school districts are "mandated" by section 59300 to make the contributions called for therein. The commission claims that plaintiffs are not compelled to contribute to the education of handicapped children at the state schools because they possess other options to educate such students. In 1980, the Legislature passed a law codified in the Education Code, which requires local education agencies to assess the needs ***837** of handicapped pupils residing in their districts, and to formulate an appropriate plan to educate them. (§ 56000 et seq.)

The commission asserts that a local agency has the option under section 56361 to provide a local program for handicapped children, to send them to private schools, or to refer them to the state-operated schools. At the hearing before the commission, the Department of Finance recommended that the commission find that section 59300 does not impose a state mandate because plaintiffs were not required to send students from their districts to the state schools but had the additional options described in section 56361. The commission staff recommended against adoption of this position on the ground that the plaintiffs "had no other reasonable alternative than to utilize the services of the state-operated schools, as they are the least expensive alternative in educating handicapped children." [9]

The commission did not and was not required to decide whether section 59300 constitutes a state mandate since it concluded that plaintiffs were not entitled to reimbursement in any event because the section does not provide for a new program or increased level of service. The issue is for the commission to determine, as it is charged by section 17551 of the Government Code with the duty to decide in the first instance whether a local agency is entitled to reimbursement under section 6 of article XIIIB.

In view of our conclusion that the question whether section 59300 amounts to a state mandate must be remanded to the commission, we do not decide whether, as the superintendent and the department argue, plaintiffs' sole remedy, in the event a reimbursable mandate is ultimately found, is to seek relief under the procedure set forth in section 17500 et seq. of the Government Code.

([3]) The final question is whether the superintendent and the department acted in excess of their authority in deducting the amount of the contributions required of plaintiffs by section 59300 from the funds appropriated by the state to them for the support of the districts' schools. Plaintiffs cite no authority for the proposition that such conduct was improper. Section 59300 does not specify the method by which the contributions of the school districts to the state schools shall be paid. We agree with the Court of Appeal that in these circumstances the method of collection is left to the reasonable discretion of the department, and in view of the fact no test claim had been filed when the school districts failed to pay the invoices, the ***838** method of collection the Department chose was

not unreasonable. (See, e.g., *Carmel Valley Fire Protection Dist.* v. *State of California, supra*, 190 Cal.App.3d 521, 550.)

The judgment of the Court of Appeal is reversed, and the court is directed to remand the matter to the commission for further proceedings consistent with this opinion.

Lucas, C. J., Broussard, J., Panelli, J., Arguelles, J., Eagleson, J., and Kaufman, J., concurred.

The petition of respondent Commission on State Mandates for a rehearing was denied April 27, 1988. ***839**

Footnotes

* Retired judge of the superior court sitting under assignment by the Chairperson of the Judicial Council.(Opinion by Mosk, J., with Lucas, C. J., Broussard, Panelli, Arguelles, Eagleson and Kaufman, JJ., concurring.) ***831**

1 Hereafter all statutory references are to the Education Code unless otherwise noted, and all references to articles are to the California Constitution.

2 "Excess annual cost" means the total cost of educating a pupil in a state-operated school less a school district's annual base revenue limit, multiplied by the estimated average daily attendance of the state-operated school.

3 In *Carmel Valley Fire Protection Dist.* v. *State of California* (1987) 190 Cal.App.3d 521, 549 [234 Cal.Rptr. 795], the court observed that this remedy would afford relief only prospectively, and not as to funds previously paid out by a local agency to satisfy a state mandate.

4 The claim was originally filed with the State Board of Control, which preceded the commission; when the commission was created in 1984, the claim was transferred to it for determination.

5 The court found that this "adjustment" was "precipitated" by the Special Education Program, enacted in 1980 (Stats. 1980, ch. 797, § 9, p. 2411 et seq.), discussed in a later part of this opinion, which afforded local governments certain options to educate the handicapped.

6 The Revenue and Taxation Code also contains provisions requiring reimbursement of local agencies for state-mandated costs. (Rev. & Tax Code, § 2201 et seq.) These provisions were enacted before the adoption of article XIIIB (Stats. 1973, ch. 358, § 3, p. 780), but the principle of reimbursement was enshrined in the Constitution in 1979 with the adoption of section 6 of article XIIIB to provide local entities with the assurance that state mandates would not place additional burdens on their increasingly limited revenue resources.

7 There is a statement in *County of Los Angeles, supra*, that a concern prompting the adoption of section 6 in article XIIIB "was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (43 Cal.3d at p. 56.) We do not read the phrase "administered by local agencies" to mean that the electorate intended that only locally administered programs require state reimbursement. The underlying premise of the sentence is that reimbursement is required if the state transfers fiscal responsibility to a local agency for a program the state deems desirable.

8 An opinion of the Attorney General, relied on by the commission, is inapposite. It suggests that a law increasing the number of judges in a municipal court district does not constitute a higher level of service under section 6 of article XIIIB because the district has a constitutional obligation to provide for an adequate number of judges. (63 Ops.Cal.Atty.Gen. 700, 702. (1980)) In the present case, the issue is whether section 59300 involves a new program rather than a higher level of service, and it is clear that at the time the section was enacted, plaintiffs did not have an obligation to contribute to the support of the students from their districts at the state schools for the severely handicapped.

9 According to the Department of Finance, in 1979-1980, the average cost to educate a student in a local program was $5,527, for private school the cost was $9,527, and for the least expensive state school $15,556. The local agency is required to pay 30 percent of the cost for students placed in private schools.

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Superseded by Statute as Stated in North Bay Construction, Inc. v. City of Petaluma, Cal.App. 1 Dist., September 28, 2006

49 Cal.App. 78, 193 P. 294

MARIN WATER AND POWER COMPANY (a Corporation), Appellant,
v.
TOWN OF SAUSALITO (a Municipal Corporation), Respondent.

Civ. No. 3395.
District Court of Appeal, First District, Division 1, California.
August 26, 1920.

HEADNOTES

(1)
MUNICIPAL CORPORATIONS--OWNERSHIP OF WATERWORKS AND SYSTEM--LIABILITY TO EXECUTION.
--A municipal corporation owning and operating its own waterworks and system for supplying itself and its inhabitants with water under the powers conferred upon it by the constitution and by the Municipal Corporations Act, under which it is organized, cannot have its waterworks and system seized and taken from it under a writ of execution, at the instance of a judgment creditor, and be thus deprived of the right which it thus possesses and exercises to supply its inhabitants with water.

(2)
ID.--RIGHT TO DISTRIBUTE WATER--SALE AS FRANCHISE.
--The right which a municipal corporation possesses to distribute the water derived from its waterworks by means of its distributing system to its customers, the water users of said town and its vicinity, and to make charges therefor, does not constitute a franchise, such as may be seized and sold under sections 388 and 389 of the Civil Code.

(3)
ID.--STATUS OF MUNICIPALITY.
--A city is never other than a public corporation, whether exercising its governmental powers or other powers, in the operation of public utilities, or acting in the quiescent state of a property owner. (Opinion of supreme court on denial of hearing.)

(4)
ID.--OWNERSHIP OF PROPERTY--WHEN SUBJECT TO EXECUTION.
--The property which a municipal corporation holds for the purpose of exercising its governmental powers or for the purpose of exercising its constitutional power to operate waterworks to supply its inhabitants with water or other like public purposes is not subject to execution; but property which it holds merely as a proprietor, devoting it to no use of a public character, such as lands acquired or held for other than public purposes and not in trust for public use, are subject to execution unless some statutory or constitutional provision forbids it. (Opinion of supreme court on denial of hearing.)

SUMMARY

APPEAL from an order of the Superior Court of Marin County recalling and quashing certain writs of execution and the levies made thereunder. Edgar T. Zook Judge, Affirmed.

The facts are stated in the opinion of the court.

COUNSEL
Lilienthal, McKinstry & Raymond for Appellant.
O. F. Meldon for Respondent.

RICHARDS, J.

This is an appeal from an order of the trial court recalling and quashing certain writs of execution and the levies made thereunder which had been caused to be issued by the plaintiff upon a money judgment obtained by it against the town of Sausalito, a municipal corporation, and which under the plaintiff's direction the sheriff had undertaken to levy upon the plant and waterworks owned and operated by the defendant as such municipal corporation for the purpose of supplying water to the town and people of Sausalito, and also upon the so-called franchise of the said defendant to use the streets and highways of such town for such purpose, and to sell such water to the inhabitants of Sausalito and its vicinity and to charge and collect tolls therefor.

The sole question presented upon the hearing of this matter in the trial court and upon this appeal is as to whether the municipally owned waterworks of said defendant and its so-called franchise for supplying water to its people can be made the subject of levy and sale upon execution issued on a money judgment obtained against said municipality. The trial court determined this contention adversely to the plaintiff, and we are asked to reverse its order made in that regard upon this appeal.

In support of its contention the appellant urges that in undertaking to acquire and operate a municipal waterworks system the town of Sausalito is undertaking to act not in a governmental but in a proprietary capacity; and that since it is so engaged in acting it stands in respect to its liability for its debts, and also in respect to the means for the enforcement of such liability, in the same position as a private corporation would stand if engaged in a similar enterprise. In making this contention the appellant strongly relies on the cases of *Davoust v. City of Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], *South Pasadena v. Pasadena Land Co.*, 152 Cal. 593, [93 Pac. 490], and ***80** *Marin Water & Power Co. v. Town of Sausalito*, 168 Cal. 587, [143 Pac. 767]. It may not be denied that in each of these cases and in respect to the questions presented for determination therein the supreme court has committed itself to the proposition that in administering such a public utility as a water system a municipality is engaged in the exercise of proprietary rather than governmental powers, and, hence, that it may become liable in damages, for example, for injuries caused through the negligence of its servants in the operation of such a utility, when it would not otherwise be responsible for the acts of its servants while occupied in the administration of governmental powers. We are constrained, therefore, to accept the distinction which the supreme court has thus made between the governmental and proprietary functions of municipalities; although in doing so we are disposed to give our approval to that portion of the concurring opinion of Mr. Justice Shaw in the case of *Davoust v. City of Alameda, supra*, in which such a distinction is declared to be wholly fictitious, and apt to produce embarrassing consequences if extended and applied to other cases than those then before that court. We also desire to approve and adopt the language of Mr. Justice Shaw in the case of *City of Pasadena v. Railroad Commission*, 183 Cal. 526, [10 A. L. R. 1425, 192 Pac. 25], wherein the learned justice says: "It is not true that a city is a private corporation when carrying on a municipally owned public utility. No decision so holds. All the decisions on the subject recognize the fact that a city does not change its character by engaging in such enterprises. The entire course of reasoning in the opinions is founded on the postulate that such city retains its character as a municipal corporation, and the burden of the arguments consists of efforts to find reasons for holding it liable to the same extent as a private corporation engaged in the same service, notwithstanding the fact that the city carries on the business as a municipal corporation. They all assume that such city is as much a municipal corporation with respect to such business functions as it is with regard to the exercise of its purely governmental powers. The distinction does not go to its character as a corporation, but to its liabilities when exercising one class of its powers, as compared to its liabilities in the exercise of its functions as a local governmental agency." ***81**

We think the foregoing language may be given pertinent application to the questions presented upon this appeal, since the effect thereof is to determine that a municipality operating a municipally owned water system is not the less a public corporation while engaged in the exercise of its powers. **[1]** This being true, we are confronted with the question as to whether or not a strictly public or municipal corporation owning and operating its own waterworks and system for supplying itself and its inhabitants with water under the powers conferred upon it by the constitution and by the Municipal Corporations Act (Laws 1883, p. 93), under which it is organized, can have its said waterworks and system seized and taken from it under a writ of execution, and be thus deprived of the right which it thus possesses and exercises to supply its inhabitants with water. We are of the opinion that this cannot be done; that the sections of the code giving creditors of corporations the right to enforce their judgments by means of writs of execution have reference to private and not public corporations, and that a public corporation does not become a private corporation when it undertakes to exercise such proprietary functions as the establishment and operation of such public utilities as waterworks or light works or other activities of a like character. In the case of *People v. San Joaquin AgriculturalAssn.*, 151 Cal. 797, [91 Pac. 740], it was held that the property of a district agricultural association, while engaged in carrying on the public functions and activities for which it was organized under the laws of the state, could not be taken by means of a writ of execution in the absence of an express statute authorizing such a levy.

In the case of *Tulare Irr. Dist. v. Collins*, 154 Cal. 440, [97 Pac. 1124], it was held that an irrigation district organized under the statutes authorizing the formation and conduct of such districts was a public corporation holding and using its property as such for a public use, and that its said property, while so devoted to such use, could not be made the subject of such levy and sale upon execution at the instance of a private creditor.

To like effect is *Denicke v. Santa Clara Agr. Assn.*, 9 Cal. App. 228, [98 Pac. 687].

We are satisfied that a like reasoning is to be applied to the facts of the case at bar. The town of Sausalito, as a ***82** public corporation, is engaged through its waterworks and system in administering a public use under the express authority of the constitution and of the Municipal Corporations Act under which it was organized. To permit a private creditor of such public corporation to levy an execution upon its said property while so devoted to public use would be in effect to permit such private creditor by such means to nullify the provisions of the constitution which invest it with such powers, and terms of the Municipal Corporations Act by virtue of which it is undertaking to exercise the same.

[2] It is further contended by the appellant herein that the right which the defendant as a municipal corporation possesses to distribute the water derived from its waterworks by means of its distributing system to its customers, the water users of said town and its vicinity, and to make charges therefor, is a franchise, which may be seized and sold under execution under sections 388 and 389 of the Civil Code. While it may be conceded that the grant to a private corporation of the right to exercise such functions as that of supplying water to a body of customers for a consideration in the way of tolls would be a franchise under the accepted definition of that term, we do not think such definition is to be extended to similar powers and activities when the same are being exercised by a public corporation by virtue of the powers possessed by it under the constitution and laws of the state. It is true that in one of the cases from which excerpts were quoted in the case of *Davoust v. City of Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], similar proprietary functions of a municipality were referred to as a franchise; but we do not understand that the supreme court of this state became thus committed to such an extended definition of that term. Nor do we think it can be rightly extended to such powers and functions when exercised by a public corporation within the domain of its sovereignty and under the authority and powers with which it is invested as such public corporation by the constitution and laws of the state. Neither do we think that sections 388 and 389 of the Civil Code can be held to have application to such public uses, for the reason that to permit the right of a city or town to deliver water or light, or any like commodity to its inhabitants, ***83** to be made the subject of sale under execution at the instance of a private creditor would be to not only interfere and destroy its exercise of this public use, but would amount to its transfer through such sale to private persons, contrary to the constitution and legislative intent by which such corporations were invested with the powers to establish municipal waterworks and similar public utilities and to serve their people with these commodities. It seems clear that these rights of the municipality, whether properly designated as a franchise or not, cannot be made the subject of a sale.

For the foregoing reasons we are of the opinion that the order should be affirmed, and it is so ordered.

Waste, P. J., and Welch, J., *pro tem.*, concurred.
A petition to have the cause heard in the supreme court, after judgment in the district court of appeal, was denied by the supreme court on October 25, 1920, and the following opinion then rendered thereon:

THE COURT

.--In denying a rehearing in this case we think it proper to say that we do not entirely approve the reasoning of the opinion of the district court. **[3]** A city is never other than a public corporation, whether exercising its governmental powers or other powers, in the operation of public utilities, or acting in the quiescent state of a property owner. The fact that it is a public corporation does not determine the question whether or not its property is subject to execution. **[4]** The true rule is that the property which it holds for the purpose of exercising its governmental powers or for the purpose of exercising its constitutional power to operate waterworks to supply its inhabitants with water or other like public purposes is not subject to execution, the reason being that to subject it to sale

would interfere with the exercise by the city of some of the powers for which it was organized. On the other hand, property which it holds merely as a proprietor, devoting it to no use of a public character, such as lands acquired or held for other than public purposes and not in trust for public use, are subject to execution unless some statutory or constitutional provision forbids it. (***84** *Holladay v. Frisbie*, 15 Cal. 630; *Wheeler v. Miller*, 16 Cal. 124.) The property here proposed to be taken in execution was used for public purposes and was necessary therefor, and hence it comes within the classes first described.

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KeyCite Red Flag - Severe Negative Treatment
Superseded by Statute as Stated in State Dept. of State Hospitals v. Superior Court, Cal., June 1, 2015

55 Cal.2d 211, 359 P.2d 457, 11 Cal.Rptr. 89

LOUISA C. MUSKOPF et al., Appellants,
v.
CORNING HOSPITAL DISTRICT, Respondent.

Sac. No. 7229.
Supreme Court of California
Jan. 27, 1961.

HEADNOTES

(1)
State of California § 57--Liability.
The rule of governmental immunity from tort liability must be discarded as mistaken and unjust.

See **Cal.Jur.2d,** State of California, § 155 et seq.; **Am.Jur.,** States, Territories and Dependencies, § 73.

(2)
Hospitals § 8--Tort Liability.
A hospital is not protected from tort liability by the rule of charitable immunity, this doctrine having been abolished.

(3)
State of California § 57--Liability.
The state, like a municipality, can act in a proprietary capacity.

(4)
Hospitals § 15--Actions Against.
A suit against a county hospital or hospital district is against an entity legally and financially capable of satisfying a judgment.

See **Cal.Jur.2d,** Hospitals and Asylums, § 18; **Am.Jur.,** Hospitals and Asylums, § 18.

(5)
State of California § 57--Liability.
The rule of governmental immunity for tort is an anachronism, without rational support, and has existed only by the force of inertia. It does not actually exist, but has become riddled with exceptions both legislative and judicial, and the exceptions operate so illogically as to cause serious inequality.

(6)
Hospitals § 15--Actions Against.
Since the Legislature has by virtue of Health & Saf. Code, § 32121, subd. (b), set forth the manner [all actions and proceedings] and the courts [all courts] in which suits against a hospital district may be brought, in such suits judgment may be entered against the hospital district.

(7)
State of California § 67--Actions Against.
Const., art. XX, § 6, providing that suits may be brought against the state in such manner and in such courts as shall be directed by law, should not be interpreted as establishing the rule of immunity; it provides merely for a legislative consent to suit.

(8)
State of California § 67--Actions AgainstHospitals--Actions Against.
Although Gov. Code, § 641, allowing the state to "sue or be sued," and Health & Saf. Code, § 32121, subd. (b), permitting a hospital district "to sue and be sued," have been judicially construed as providing only a waiver from suit and not a waiver of substantive immunity, their continuous reenactment indicates a clear legislative purpose to remove all procedural obstacles when the state is liable.

(9)
State of California § 57--Liability.
Statutes removing governmental immunity from liability in certain areas should be interpreted as meaning only what they say: that in the areas indicated there shall be no governmental immunity; they leave to the court whether it should adhere to its own rule of immunity in other areas.

(10)
State of California § 57--Liability.
From the inception of the "rule" of governmental immunity from liability there has been constant judicial restriction going hand in hand with accompanying legislative restriction, the concept of proprietary acts has been extended to the state and its agencies, and there

is governmental liability for nuisances even when they involve governmental activity.

(11)
State of California § 57--Liability.
In formulating "rules" and "exceptions" relating to governmental immunity from liability, it should be borne in mind that when there is negligence the rule is liability, immunity is the exception.

(12)
State of California § 57--Liability.
Abrogation of governmental immunity from liability does not mean that the state is liable for all harms that result from its activities. Both the state and individuals are free to engage in many activities that result in harm to others so long as such activities are not tortious.

(13)
State of California § 58--Liability.
Although it "is not a tort for Government to govern" and basic policy decisions of government within constitutional limitations are therefore necessarily nontortious, it does not follow that the state is immune from liability for torts of its agents. Once it is determined that the state through its agents has committed a tort, it must meet its obligations therefor.

(14)
Hospitals § 8--Tort Liability.
The employees of a hospital district are not immune from liability for their negligence in caring for and treating a paying patient in a hospital operated by the district.

(15)
Public Officers § 61--Civil Liability.
Governmental officials are liable for the negligent performance of their ministerial duties, but are not liable for their discretionary acts within the scope of their authority, even if it is alleged that they acted maliciously. Such immunity is not designed to protect the guilty, but rests on the ground that it is impossible to know whether the claim is well founded until the case has been tried and that it would be better to leave unredressed the wrongs done by dishonest officers than to subject those who try to do their duty to the constant dread of retaliation.

See **Cal.Jur.2d,** Public Officers, § 144 et seq.; **Am.Jur.,** Public Officers, §§ 289.5, 303 et seq.

SUMMARY

APPEAL from a judgment of the Superior Court of Tehama County. Curtiss E. Wetter, Judge. Reversed.

Action for damages for injuries sustained by a paying patient in a hospital operated by defendant hospital district. Judgment for defendant after general demurrer to complaint was sustained and plaintiff refused to amend, reversed.

COUNSEL
P. M. Barceloux, Burton J. Goldstein, Goldstein, Barceloux & Goldstein and Reginald M. Watt for Appellants.
Glenn D. Newton and William W. Coshow for Respondent.
Stanley Mosk, Attorney General, Charles A. Barrett, Assistant Attorney General, and Frederick G. Girard, Deputy Attorney General, Dion R. Holm, City Attorney (San Francisco), William F. Bourne and Beatrice Challiss, Deputy City Attorneys, Jennings, Engstrand & Henrikson and Paul D. Engstrand, Jr., as Amici Curiae on behalf of Respondent.

TRAYNOR, J.

Plaintiff Louisa C. Muskopf was a paying patient in the Corning Memorial Hospital. She and her husband allege that because of the negligence of the hospital staff she fell and further injured the broken hip for which she was being treated. Defendant demurred on the ground that the Corning Hospital District is immune from liability for tort under the rule of *Talley v. Northern San Diego County Hospital District,* 41 Cal.2d 33 [257 P.2d 22], which held that a hospital district was a state agency exercising a governmental function and as such was immune from tort liability. Defendant's demurrer was sustained, and upon plaintiffs' refusal to amend the court entered judgment for defendant. Plaintiffs appeal.

Plaintiffs contend that operating a hospital is a proprietary function of government and that in any event the rule of governmental immunity should be discarded.

([1]) After a reevaluation of the rule of governmental immunity from tort liability we have concluded that it must be discarded as mistaken and unjust.

The rule of hospital district tort immunity was based on ***214** cases upholding county hospital immunity. (*Sherbourne v. Yuba County,* 21 Cal. 113, 114-115 [81 Am.Dec. 151]; *Calkins v. Newton,* 36 Cal.App.2d 262, 264-268 [97 P.2d 523]; *Griffin v. County of Colusa,* 44 Cal.App.2d 915, 919-922 [113 P.2d 270.) These cases rest on the grounds that a county, like the state, can act only in governmental capacity and that a hospital is protected by the rule of charitable immunity. ([2], [3]) The latter doctrine has been abolished in this state. (*Silva v. Providence Hospital,* 14 Cal.2d 762, 764-776 [97 P.2d 798]; *Malloy v. Fong,* 37 Cal.2d 356, 364-367 [232 P.2d 241]), and it is now settled that the state, like a municipality, can act in a proprietary capacity. (*People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919].) Subsequent to the Talley case, other decisions of this court have expanded the area of the state's proprietary activities. (*Guidi v. State,* 41 Cal.2d 623, 626-628 [262 P.2d 3]; *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458].)

The shifting fortune of the rule of governmental immunity as applied to hospitals is illustrative of the history of the rule itself. From the beginning there has been misstatement, confusion, and retraction. At the earliest common law the doctrine of "sovereign immunity" did not produce the harsh results it does today. It was a rule that allowed substantial relief. It began as the personal prerogative of the king, gained impetus from sixteenth century metaphysical concepts, may have been based on the misreading of an ancient maxim, and only rarely had the effect of completely denying compensation. [1] How it became in the United States the basis for a rule that the federal and state governments did not have to answer for their torts has been called "one of the mysteries ***215** of legal evolution." (Borchard, *Governmental Responsibility in Tort,* 34 Yale L.J., 1, 4.)

The rule of county or local district immunity did not originate with the concept of sovereign immunity. The first case to hold that local government units were not liable for tort was *Russell v. Men of Devon,* 100 Eng.Rep. 359. The case involved an action in tort against an unincorporated county. The action was disallowed on two grounds: since the group was unincorporated there was no fund out of which ***216** the judgment could be paid; and "it is better that an individual should sustain an injury than that the public should suffer an inconvenience." (100 Eng. Rep. 359, 362.) The rule of the Russell case was first brought into this country by *Mower v. Leicester,* 9 Mass. 247, 249 [6 Am.Dec. 63]. There the county was incorporated, could sue and be sued, and there was a corporate fund out of which a judgment could be satisfied. Ignoring these differences, the Massachusetts court adopted the rule of the Russell case, which became the general American rule.

If the reasons for *Russell v. Men of Devon* and the rule of county or local district immunity ever had any substance they have none today. ([4]) Public convenience does not outweigh individual compensation, and a suit against a county hospital or hospital district is against an entity legally and financially capable of satisfying a judgment. Thus, it was judicially recognized in England over half a century ago that a public hospital is liable for its torts. (*Hillyer v. St. Bartholomew's Hospital* (1909), 2 K.B. 820, 825.)

([5]) The rule of governmental immunity for tort is an anachronism, without rational basis, and has existed only by the force of inertia. (See Borchard, *Governmental Responsibility for Tort,* 34 Yale L.J. 129, 229; Casner and Fuller, *Municipal Tort Liability in Operation,* 54 Harv. L. Rev. 437; Repko, *Commentary on Municipal Tort Liability,* 9 Law & Cont. Prob. 214.) It has been judicially abolished in other jurisdictions. (*Molitor v. Kaneland Community Unit District No. 302,* 18 Ill.2d 11 [163 N.E.2d 89, 90-96]; *Colorado Racing Com. v. Brush Racing Assn.,* 136 Colo. 279 [316 P.2d 582, 585-586]; *Hargrove v. Town of Cocoa Beach* (Fla.), 96 So.2d 130, 132-134 [60 A.L.R.2d 1193].)

None of the reasons for its continuance can withstand analysis. No one defends total governmental immunity. In fact, it does not exist. It has become riddled with exceptions, both legislative (Gov. Code, §§ 50140, 53051; Ed. Code, § 903; Veh. Code, § 17001) and judicial (*Chafor v. City of Long Beach,* 174 Cal. 478, 481-483 [163 P. 70, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; *People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919]), and the exceptions operate so illogically as to cause serious inequality. Some who are injured by governmental agencies can recover, others cannot: one injured while attending a community theater in a public park may recover (*Rhodes v. City of Palo Alto,*

100 Cal.App.2d 336, 341-342 [223 P.2d 639]), but one ***217** injured in a children's playground may not (*Farrell v. City of Long Beach,* 132 Cal.App.2d 818, 819-820 [283 P.2d 296]); for torts committed in the course of a "governmental function" there is no liability, unless the tort be classified as a nuisance (*Phillips v. City of Pasadena,* 27 Cal.2d 104, 106 [162 P.2d 625]). The illogical and inequitable extreme is reached in this case: we are asked to affirm a rule that denies recovery to one injured in a county or hospital district hospital, although recovery may be had by one injured in a city and county hospital. (*Beard v. City & County of San Francisco,* 79 Cal.App.2d 753, 755-768 [180 P.2d 744].)

Article XX, section 6 of the California Constitution provides: "Suits may be brought against the State in such manner and in such courts as shall be directed by law." ([6]) Health and Safety Code, section 32121, subdivision (b), provides that a hospital district shall have the power "To sue and be sued in all courts and places and in all actions and proceedings whatever." Since the Legislature has set forth the manner [all actions and proceedings] and the courts [all courts] in which suits against a hospital district may be brought it would seem to follow that in such suits judgment may be entered against the hospital district.

Previous cases, however, have differentiated between the state's consenting to be sued and its substantive liability, and have held that the language used in section 32121, subdivision (b), and in article XX, section 6, gives only the state's consent to be sued and does not waive any defenses or immunities. Thus, an 1893 statute (Stats. 1893, p. 57, now Gov. Code, § 641) providing that those having claims for negligence against the state were authorized "to bring suit thereon ..." was held not to waive the state's sovereign immunity but only to give its consent to be sued when it was otherwise liable. (*Denning v. State,* 123 Cal. 316, 319 [55 P. 1000], citing *Chapman v. State,* 104 Cal. 690, 693 [38 P. 457, 43 Am.St. Rep. 158]; *Melvin v. State,* 121 Cal. 16, 23 [53 P. 416].)

([7]) It is contended, however, that article XX, section 6, should be interpreted as also having substantive significance and establishing the rule of immunity. Such an interpretation would be contrary to *People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919], *Guidi v. State,* 41 Cal.2d 623, 626-628 [262 P.2d 3], and *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458], which extended the state's liability to its proprietary activities. If the section has any substantive significance it would appear to be a waiver of immunity. ***218** On its face it seems to say that the state may be held liable when suits are brought against it in accordance with a legislatively prescribed procedure. Consistent, however, with our previous construction of essentially identical statutory language, we hold that article XX, section 6, provides merely for a legislative consent to suit.

It is strenuously urged, however, that it is for the Legislature and not the courts to remove the existing governmental immunities. Two basic arguments are made to deny the court's power: first, that by enacting various statutes affecting immunity the Legislature has determined that no further change is to be made by the court; and second, that by the force of *stare decisis* the rule has become so firmly entrenched that only the Legislature can change it. Neither argument is persuasive.

The doctrine of governmental immunity was originally court made. ([8]) The Legislature early adopted a statute allowing the state to "sue or be sued" (Gov. Code, § 641) and a similar statute applies to hospital districts (Health & Saf. Code, § 32121, subd. (b)). Although those statutes have been construed as providing only a waiver from suit and not a waiver of substantive immunity (*Melvin v. State,* 121 Cal. 16, 23 [53 P. 416]), their continuous reenactment indicates a clear legislative purpose to remove all procedural obstacles when the state is liable.

The state has also enacted various statutes waiving substantive immunity in certain areas. (Gov. Code, § 53051 [dangerous or defective condition of public property]; Gov. Code, § 50140 [damage by mobs or riots]; Ed. Code, § 903 [liability of school district]; Veh. Code, § 17001 [public agency liability for negligent operation of motor vehicle].) Defendant contends that by removing immunity in these areas the Legislature has retained it in all others.

We are not here faced with a situation in which the Legislature has adopted an established judicial interpretation by repeated reenactment of a statute. (*Richfield Oil Corp. v. Public Utility Com.,* 54 Cal.2d 419, 430 [6 Cal.Rptr. 548, 354 P.2d 4].) Nor are we faced with a comprehensive legislative enactment designed to cover a field. What is before us is a series of sporadic statutes, each operating on a separate area of governmental immunity

where its evil was felt most. ([9]) Defendant would have us say that because the Legislature has removed governmental immunity in these areas we are powerless to remove it in others. We read the statutes as meaning only what they say: that in the areas indicated ***219** there shall be no governmental immunity. They leave to the court whether it should adhere to its own rule of immunity in other areas.

([10]) Defendant also urges that even if the Legislature has not adopted the rule of governmental immunity in the areas in which it has not expressly abolished it, the rule has existed for so long that only the Legislature has the power to change it. The "rule" of governmental immunity, however, has not existed with the force that its repetition would imply. From its inception there has been constant judicial restriction, going hand in hand with accompanying legislative restriction. Municipal corporations were first held subject to the court's equitable jurisdiction (*Spring Valley Water Works v. City & County of San Francisco,* 82 Cal. 286, 307- 311 [22 P. 910, 16 Am.St.Rep. 116, 6 L.R.A. 756]). They were then held liable for their proprietary acts (*Chafor v. City of Long Beach,* 174 Cal. 478, 481-483 [163 P. 70, Ann.Cas. 1918D 106, L.R.A. 1917E 685]), which have been constantly expanded. Thus, a community theater in a public park (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, 341-342 [223 P.2d 639]); a public golf course (*Plaza v. City of San Mateo,* 123 Cal.App.2d 103, 106-112 [266 P.2d 523]); an electric lighting plant (*Davoust v. City of Alameda,* 149 Cal. 69, 72-74 [84 P. 760, 9 Ann. Cas. 847, 5 L.R.A. N.S. 536]); and the furnishing of impure water (*Ritterbusch v. City of Pittsburg,* 205 Cal. 84, 86-88 [269 P. 930, 61 A.L.R. 448]), have all furnished the basis for municipal liability. Moreover, the concept of proprietary acts has been extended to the state and its agencies (*People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R. 2d 919]), and the liability of the state under that concept is increasing. (*Guidi v. State,* 41 Cal.2d 623,, 626-628 [262 P.2d 3]; *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458].) Finally, there is governmental liability for nuisances even when they involve governmental activity. (*Phillips v. City of Pasadena,* 27 Cal.2d 104, 106 [162 P.2d 625].)

([11]) In formulating "rules" and "exceptions" we are apt to forget that when there is negligence, the rule is liability, immunity is the exception. This court implemented that policy when it overruled the doctrine of charitable immunity. (*Silva v. Providence Hospital,* 14 Cal.2d 762, 764-776 [97 P.2d 798]; *Malloy v. Fong,* 37 Cal.2d 356, 364-367 [232 P.2d 241]), an immunity that was also claimed to be so firmly imbedded that only the Legislature could change it.

([12]) Abrogation of governmental immunity does not ***220** mean that the state is liable for all harms that result from its activities. Both the state and individuals are free to engage in many activities that result in harm to others so long as such activities are not tortious. Thus the harm resulting from free competition among individuals is not actionable, nor is the harm resulting from the diversion of business by the state's relocation of a highway. (*People v. Symons,* 54 Cal.2d 855, 859 [9 Cal.Rptr. 363, 357 P.2d 451]; *Holloway v. Purcell,* 35 Cal.2d 220, 230 [217 P.2d 665].) It does not follow, however, that torts may not be committed in carrying on such activities. A competitor may be liable for the harm resulting from his violation of traffic laws in getting his product to market, just as the state may be liable for the harm caused by its agents' violation of such laws. ([13]) Although it "is not a tort for Government to govern" (Jackson, J., dissenting in *Dalehite v. United States,* 346 U.S. 15, 57 [73 S.Ct. 956, 97 L.Ed. 1427]), and basic policy decisions of government within constitutional limitations are therefore necessarily nontortious, it does not follow that the state is immune from liability for the torts of its agents. These considerations are relevant to the question whether in any given case the state through its agents has committed a tort (see 3 Davis, Administrative Law (1958), § 25.11, p. 482; § 25.13, p. 489), but once it is determined that it has, it must meet its obligation therefor.

Nor does our decision herein affect the settled rules of immunity of government officials for acts within the scope of their authority. ([14]) Moreover, since defendant's employees are not immune from liability for their negligence in caring for and treating plaintiff, the question of the extent to which the state should be immune when its officers are is not involved in this case. (See *Lipman v. Brisbane Elementary School Dist., post,* p. 224 [11 Cal.Rptr. 97, 359 P.2d 465].)

([15]) Government officials are liable for the negligent performance of their ministerial duties (*Mock v. Santa Rosa,* 126 Cal. 330, 334 [58 P. 826]; *Payne v. Baehr,* 153 Cal. 441, 444 [95 P. 895] but are not liable for their discretionary acts within the scope of their authority

(*Downer v. Lent,* 6 Cal. 94, 95 [95 Am.Dec. 489]; *Newport Wharf & Lbr. Co. v. Drew,* 141 Cal. 103, 107-108 [74 P. 697]; *Oppenheimer v. Arnold,* 99 Cal.App.2d 872, 874 [222 P.2d 940]; *Martelli v. Pollock,* 162 Cal.App.2d 655, 659-660 [328 P.2d 795]), even if it is alleged that they acted maliciously (*White v. Towers,* 37 Cal.2d 727, 730-732 [235 P.2d 209, 28 A.L.R.2d 636]; *Coverstone v. Davies,* 38 Cal.2d 315, 322 [239 P.2d 876]; ***221** *Hardy v. Vial,* 48 Cal.2d 577, 582-584 [311 P.2d 494]). Such immunity is not designed to protect the guilty, for "if it were possible in practice to confine such complaints to the guilty, it would be monstrous to deny recovery. The justification for doing so is that it is impossible to know whether the claim is well founded until the case has been tried, and that to submit all officials, the innocent as well as the guilty, to the burden of a trial and to the inevitable danger of its outcome, would dampen the ardor of all but the most resolute, or the most irresponsible, in the unflinching discharge of their duties. ... In this instance it has been thought in the end better to leave unredressed the wrongs done by dishonest officers than to subject those who try to do their duty to the constant dread of retaliation." (Learned Hand, J., in *Gregoire v. Biddle,* 177 F.2d 579, 581; see also *Hardy v. Vial,* 48 Cal.2d 577, 582-583 [311 P.2d 494].) Thus this immunity rests on grounds entirely independent of those that have been advanced to justify the immunity of the state from liability for torts for which its agents are admittedly liable.

Only the vestigial remains of such governmental immunity have survived; its requiem has long been foreshadowed. For years the process of erosion of governmental immunity has gone on unabated. The Legislature has contributed mightily to that erosion. The courts, by distinction and extension, have removed much of the force of the rule. Thus, in holding that the doctrine of governmental immunity for torts for which its agents are liable has no place in our law we make no startling break with the past but merely take the final step that carries to its conclusion an established legislative and judicial trend.

The judgment is reversed.

Gibson, C. J., Peters, J., White, J., and Dooling, J., concurred.

SCHAUER, J.,

Dissenting.

As recently as 1958 this court, in *Vater v. County of Glenn,* 49 Cal.2d 815, 820 [4] [323 P.2d 85] (*per* Chief Justice Gibson, with only Justice Carter dissenting), although it expressly recognized that there has been much learned criticism of the principle of governmental immunity, held that "abrogation or restriction of this doctrine is primarily a legislative matter." And *Talley v. Northern San Diego County Hospital Dist.* (1953), 41 Cal.2d 33, 41 [15] [257 P.2d 22] (*per* Justice Shenk, with only Justice ***222** Carter dissenting), upon facts materially identical with those of the present case, held that "Whether the doctrine of sovereign immunity should be modified in this state is a legislative question." Also this court, in denying petitions for hearing after decisions of the District Courts of Appeal, has during the last decade frequently adhered to this view. [1] But today's majority, apparently impatient with the Legislature's failure to act as speedily and comprehensively as they believe it should, usurp the legislative function, refuse reasonable respect for the doctrine of *stare decisis,* and sweepingly announce (*ante,* p. 213) that "After a reevaluation of the rule of governmental immunity from tort liability we have concluded that it must be discarded as mistaken and unjust." [2]

Our state Constitution, the instrument which rules (or should rule) our decisions, provides (art. III, § 1), "The powers of the government of the State of California shall be divided into three separate departments-the legislative, executive, and judicial; and no person charged with the exercise of powers properly belonging to one of these departments shall exercise any functions appertaining to either of the others, except as in this Constitution expressly directed or permitted."

It appears that the Legislature specifically intended that a governmental unit such as the one sued here-a hospital district-should not be liable for the torts of its employes under the principle of *respondeat superior.* Since this court held in the Talley case (1953), *supra,* 41 Cal.2d 33, 40 [14], that substantive immunity was not abolished by subdivision (b) of section 32121 of the Health and Safety Code (which provides that hospital districts have power "To sue and be sued in all courts and places and in all actions and proceedings ***223** whatever"), four amendments of section 32121 have become effective (Stats. 1949, ch. 964; Stats. 1951, ch. 536; Stats. 1953,

ch. 1208; Stats. 1957, ch. 641) and several other sections concerning the powers of hospital districts have been amended or added, but the Legislature has refrained from providing for their tort liability in a situation such as that in Talley and the present case. (An even more direct example of legislative recognition of, and failure to abolish, governmental immunity is found in the Water Code sections considered in the Vater case (1958), *supra,* 49 Cal.2d 815, 818-819 [3].)

While this court was repeatedly holding that abolishment of governmental immunity was a legislative question, the Legislature enacted various statutes which reduced such immunity in certain fields but did not abolish it, and enacted and reenacted statutes which dealt with the related problem of suability of the government; therefore, it should be concluded that the Legislature agreed with this court that the questions should be resolved by statute rather than judicial decision. (See *Richfield Oil Corp. v. Public Util. Com.* (1960), 54 Cal.2d 419, 430 [2] [6 Cal.Rptr. 548, 354 P.2d 4].)

" '[I]n adopting legislation the Legislature is presumed to have had knowledge of existing domestic judicial decisions and to have enacted and amended statutes in the light of such decisions as have a direct bearing upon them.' [*Buckley v. Chadwick* (1955), 45 Cal.2d 183, 200 [14] (288 P.2d 12, 289 P.2d 242).] The failure of the Legislature to change the law in a particular respect when the subject is generally before it and changes in other respects are made is indicative of an intent to leave the law as it stands in the aspects not amended." (*Cole v. Rush* (1955), 45 Cal.2d 345, 355 [8, 9] [289 P.2d 450, 54 A.L.R.2d 1137].) Yet the majority refuse to apply the just quoted rules and say instead that the "continuous reenactment" of section 32121 (subd. (b)) indicates only "a clear legislative purpose to remove all procedural obstacles when the state is liable." (*Ante,* p. 218.) An informed refusal to respect either the doctrine of *stare decisis* or the constitutional division of powers seems manifest.

One of the grounds upon which the majority seek to justify their invasion of the legislative province is that statutory and judicial exceptions to the governmental immunity doctrine "operate so illogically as to cause serious inequality." (*Ante,* p. 216.) I had thought that the Legislature could abolish immunity in some areas and modify it in others, as it has ***224** done, without judicial interference with its efforts, so long as the unevenness of the legislation was not so great as to be unconstitutional.

Furthermore, I am impelled to comment that it is unfortunate that a court's reversal of itself on a point of law which it has recently and repeatedly considered should appear to depend upon a change of personnel. A change of court personnel is not, in my concept of judicial duty (under our historic form of government), properly to be regarded as *carte blanche* for the judiciary to effectuate either a constitutional amendment or legislative enactment. Such power, I think, should be exercised only by the People or by representatives directly responsible to them.

Because I believe that the question of abolishing governmental immunity is for the Legislature, I would affirm the judgment.

McComb, J., concurred.

Respondent's petition for a rehearing was denied February 21, 1961. Schauer, J., and McComb, J., were of the opinion that the petition should be granted.

Footnotes

1 Sovereign immunity began with the personal prerogatives of the King of England. In the feudal structure the lord of the manor was not subject to suit in his own courts. (1 Pollock and Maitland, The History of English Law [1909 ed.] 518.) The king, the highest feudal lord, enjoyed the same protection: no court was above him. (1 Pollock and Maitland, The History of English Law, *supra,* at pp. 512-517; 3 Holdsworth, History of English Law [1922 ed.] 462.) Before the sixteenth century this right of the king was purely personal. (Watkins, The State as a Party Litigant 12 [Johns Hopkins University Studies in History and Political Science, Series XLV, No. 1 (1927)].) Only out of sixteenth century metaphysical concepts of the nature of the state did the king's personal prerogative become the sovereign immunity of the state. (Watkins, The State as a Party Litigant, *supra,* at p. 11; see 4 Holdsworth, The History of English Law, *supra,* at pp. 190-197.) There is some evidence that the original meaning of the pre-sixteenth century maxim-that the king can do no wrong-was merely

that the king was not privileged to do wrong. (Borchard, *Governmental Responsibility in Tort,* 34 Yale L.J. 1, 2; Ehrlich, Proceedings Against the Crown (1216-1377) at pp. 42, 127 [Oxford Studies in Social and Legal History, vol. VI (1921)].)

The immunity operated more as a lack of jurisdiction in the king's courts than as a denial of total relief. There was jurisdiction, however, in the Court of Exchequer for equitable relief against the crown. "... the party ought in this case to be relieved against the King, because the King is the fountain and head of justice and equity; and it shall not be presumed, that he will be defective in either. And it would derogate from the King's honour to imagine, that what is equity against a common person should not be equity against him." (*Per* Atkyns, B., *Pawlett v. Attorney General* (1668), Hadres 465, 468, 145 Eng.Rep. 550, 552; *Dyson v. Attorney-General* (1912), 1 K. B. 410, 415.)

The method for obtaining legal relief against the crown was the petition of right. The action could not be brought in the king's courts because of their lack of jurisdiction to hear claims against him. The petition of right stated a claim against the king, which was barred only by his prerogative. To the petition "there must always be a reply: 'Let right be done,' " (Holdsworth, *The History of Remedies Against The Crown,* 38 L.Quar.Rev. 141, 149) and "... it is clear that the petition has assumed the character of a definite legal remedy against the Crown." (*Id.* at p. 150.) There were procedural difficulties with the petition, but alternate remedies existed in large part. (*Id.* at pp. 156-161.)

The main use of the petition of right in the early common law was in real actions, which then covered a wide field. (Holdsworth, *Remedies Against The Crown, supra,* at p. 152.) The basic principle was that the petition was proper "whenever the subject could show a legal right to redress." (*Id.* at p. 156.)

The early precedents may even be read as allowing a petition of right against the king for the torts of his servants. (See the cases of Robert (1325) and Gervais (1349) de Clifton, discussed in Ehrlich, Proceedings Against The Crown, *supra,* at pp. 123-126; Watkins, The State as a Party Litigant, *supra,* at pp. 20 n. 36.) In *Tobin v. The Queen* (1864), 16 C.B.N.S. 309, 111 Eng. Com. Law Rep. 309, however, the court refused to so read the precedents, and held that the crown was not liable for the torts of its servants. This decision arose because of the formalistic and mistaken idea that concepts of vicarious liability did not apply to the crown. (See Holdsworth, *Remedies Against The Crown, supra,* at pp. 294-296; Watkins, The State as a Party Litigant, *supra,* at p. 25.) Under the Crown Proceedings Act, 1947, however, the crown is today liable for the torts of its servants to the same extent as private persons. (Hals. Laws of England, vol. XXXII, §§ 253 A, B [Cum. Sup. 1953].)

One other protection was afforded the subject injured by the king's servants. Many of the king's officers were liable for the wrongs committed, and from the earliest times those officers had to have a sufficient financial standing to make those remedies against them meaningful. (See Ehrlich, Proceedings Against The Crown, *supra,* at pp. 200, 214.)

1 *County of Butte v. Superior Court* (1960), 178 Cal.App.2d 310, 311 [2 Cal.Rptr. 913] (hearing denied); *Ingram v. County of Glenn* (1960), 177 Cal.App.2d 649, 650 [1, 2] [2 Cal.Rptr. 304]; *Durst v. County of Colusa* (1958), 166 Cal.App.2d 623, 625 [1] [333 P.2d 789] (hearing denied); *Madison v. City & County of San Francisco* (1951), 106 Cal.App.2d 232, 244-245 [234 P.2d 995, 236 P.2d 141] (hearing denied); *Latham v. Santa Clara County Hospital* (1951), 104 Cal.App.2d 336, 337 [1] [231 P.2d 513] (hearing denied).

2 The scope of this pronouncement is defined by the further statement (*ante,* p. 220) that "Nor does our decision herein affect the settled rules of immunity of government officials for acts within the scope of their authority. Moreover, since defendant's employees are not immune from liability for their negligence in caring for and treating plaintiff, the question of the extent to which the state should be immune when its officers are is not involved in this case. (See *Lipman v. Brisbane Elementary School Dist., post,* p. 224 [11 Cal.Rptr. 97, 359 P.2d 465].)"

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KeyCite Yellow Flag - Negative Treatment
Declined to Follow by City and County of San Francisco v. Western Air Lines, Inc., Cal.App. 1 Dist., May 28, 1962

25 Cal.App. 384, 143 P. 801

CHARLES O. NOURSE, Appellant,
v.
CITY OF LOS ANGELES (a Municipal Corporation), et al., Respondents.

Civ. No. 1575.
Court of Appeal, Second District, California.
September 8, 1914.

MUNICIPAL CORPORATION--OPERATION OF WATER SYSTEM--PROPRIETARY OR SOVEREIGN CAPACITY.
Where a municipal corporation assumes, under its charter, the duty of operating a water system for the purpose of supplying its inhabitants with water, it acts, not in its sovereign capacity, but in the capacity of a private corporation engaged in like business.

ID.--SUPPLY OF WATER--DUTY TO FURNISH WITHOUT DISCRIMINATION.
In such case it is the duty of the city, like a private corporation, to furnish without discrimination to all its inhabitants who apply therefor a supply of water upon their compliance with such reasonable rules and regulations as it may lawfully establish for the conduct of the business.

ID.--RULES AND REGULATIONS--PAYMENT OF ARREARAGE OF FORMER OCCUPANT AS CONDITION PRECEDENT TO FURNISHING WATER.
A rule adopted by the city that all water rates shall be charged against the property on which it is furnished, and against the owner thereof, and in case of delinquency the water shall be cut off and not turned on until the payment of the delinquency, irrespective of any change in the ownership or occupancy of the property, is unreasonable and discriminatory as against an occupant of property whose predecessors are in default but who has himself complied with all the regulations established as conditions precedent to the furnishing of water; there being no statute or charter provision conferring authority on the city to adopt such a regulation.

ID.--MANDAMUS--WHEN LIES TO COMPEL CITY TO FURNISH WATER.
In such circumstances the applicant for water is entitled to a peremptory writ of *mandamus* to compel the city to supply him.

APPEAL from a judgment of the Superior Court of Los Angeles County. John W. Shenk, Judge.

The facts are stated in the opinion of the court.

***384** Paul Nourse, and John Beman, for Appellant.
Albert Lee Stephens, City Attorney, and Charles S. Burnell, Assistant City Attorney, for Respondents.

SHAW, J.

This is an appeal from a judgment of the trial court denying an application for a peremptory writ of mandate ***385** commanding the board of public service commissioners of the city of Los Angeles to furnish petitioner a supply of water for use at the premises designated as No. 147 West Avenue 31 in the city of Los Angeles.

At all the times in question the city of Los Angeles owned and operated a water system by means of which water was supplied to said city and its inhabitants, and with the pipes and mains of which system the said premises of petitioner were connected. Among other rules and regulations established by ordinance for the supplying of water to the inhabitants of the city, was a provision as follows:

"All water rates shall be charged against the property on which it is furnished, and against the owner thereof, and if for any cause any sums owing therefor become delinquent, the water shall be cut off, and in no case shall it be turned on to the same property until all such delinquencies shall have been paid in full. No change of ownership or occupation shall affect the application of this section."

On October 27, 1913, petitioner made demand upon respondents for a supply of water for use upon said premises, to be delivered through the pipes connecting same with the said water system, and in making the

demand he complied with all the rules and regulations established therefor, save and except that he refused to pay respondents the sum of $1.50, conceded to be due for water theretofore supplied for use upon said premises by a former occupant thereof. The sole question here involved is the validity of the provision above set forth by reason of which respondents seek to exact payment of this arrearage due for water used upon the premises by the former occupant thereof as a condition of furnishing petitioner the supply of water so demanded.

Under its charter the city has assumed the duty of operating a water system for the purpose of supplying water to its inhabitants. In the performance of this duty it acts, not in its sovereign capacity, but in the capacity of a private corporation engaged in like business. (*Appeal of Brumm,* (Pa.) 12 Atl. 855; *Linne v. Bredes,* 43 Wash. 540, [117 Am. St. Rep. 1068, 6 L. R. A. (N. S.) 707, 86 Pac. 858]; 1 Wyman on Public Service Corporations, p. 187.) Like a private corporation, it is the duty of the city to furnish without discrimination to all its inhabitants who apply therefor a supply of water upon such applicants complying with such reasonable ***386** rules and regulations as it may lawfully establish for the conduct of the business. The question is whether or not the provision upon the authority of which respondents base their refusal to supply the water is, in the absence of any statute authorizing the same, a reasonable regulation. Respondents have directed our attention to a number of cases wherein provisions similar to the one under discussion have been upheld. From an examination thereof it appears that in all the cases cited there existed a statute upon the authority of which the provision was enacted. (See *Howe v. City of Orange,* 70 N. J. Eq. 648, [62 Atl. 777]; *Appeal of Brumm,* (Pa.) [12 Atl. 855]; *City of Atlanta v. Burton,* 90 Ga. 486, [16 S. E. 214].) Where such right is conferred by statute or the organic law of the city, it can of course be asserted and enforced by ordinance embodying such rules and regulations. The city charter contains nothing touching the subject, and the general statutes of the state are silent in conferring such power. This being the case, the authority to enact the provision under discussion, if it exists at all, is by virtue of the general incidental power of the municipality. The provisions of ordinances enacted under such implied power must be reasonably necessary to carry out the express powers conferred and not inconsistent with the laws or policy of the state. (*Ex parte Green,* 94 Cal. 387, [29 Pac. 783]; *Egan v. City of San Francisco,* 165 Cal. 576, [133 Pac. 294].) The ordinance fixing the rules and regulations provides that "all rates, except meter rates, are due and payable in advance, and meter rates are due and payable at the end of the month, excepting that a deposit may be required thereon in an amount not exceeding the estimated quantity of water consumed." It appears the water was supplied to the former occupant of the premises in question by meter, and therefore the rates were not due until the expiration of the month. But under the provision just quoted the city could have exacted a deposit in an amount equal to the estimated value of the quantity of water to be supplied, thus fully protecting itself against loss. It is therefore an unnecessary regulation and as applied to petitioner, unreasonable in that, while he is not in arrears for any water furnished to him or supplied to another upon his order, it is nevertheless insisted that he pay the debt of another as a prerequisite condition to the city performing its duty to supply water to all its inhabitants without discrimination, ***387** and for a like reason is discriminatory against petitioner. While respondents do not seek directly to enforce payment of the charge against the property, they do, in withholding a legal right and by thus destroying the use of the property as a habitation, indirectly seek to compel petitioner to pay such charge. In addition to the authorities cited by respondents wherein the validity of the provision here attacked was upheld by reason of statutory authority, they have cited the cases of *Jones v. Mayor,* 109 Tenn. 550, [72 S. W. 985], and *Sheward v. Citizens' Water Co.,* 90 Cal. 635, [27 Pac. 439]. These cases are clearly distinguished from that at bar by reason of the fact that the applicant for water was himself in arrears and had made default in payment for water which had been theretofore supplied to him. Our conclusion is that the regulation in question is unreasonable in that, without statutory authority therefor, it makes one person liable for the debts of another and contravenes the duty assumed by the city to serve all its inhabitants without discrimination. This view is sustained by overwhelming authority. (See *Chicago v. Northwestern Mut. Life Ins. Co.,* 218 Ill. 40, [1 L. R. A. (N. S.) 770, 75 N. E. 803]; *Turner v. Revere Water Co.,* 171 Mass. 329, [68 Am. St. Rep. 432, 40 L. R. A. 657, 50 N. E. 634]; *Linne v. Bredes,* 43 Wash. 540, [[[[117 Am. St. Rep. 1068, 6 L. R. A. (N. S.) 707, 86 Pac. 858]; *City of Houston v. Lockwood Inv. Co.,* (Tex. Civ. App.) 144 S. W. 685; *Harbison v. Knoxville Water Co.,* (Tenn.) 53 S. W. 995.)

The judgment is reversed and the trial court instructed to render judgment awarding petitioner a peremptory writ of mandate as prayed for.

A petition to have the cause heard in the supreme court, after judgment in the district court of appeal, was denied by the supreme court on November 7, 1914.

Conrey, P. J., and James, J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Akers v. City of Palo Alto, Cal.App. 1 Dist., July 24, 1961

123 Cal.App.2d 103, 266 P.2d 523

LEAH PLAZA, Appellant,
v.
THE CITY OF SAN MATEO et al., Respondents.

Civ. No. 15672.
District Court of Appeal, First District, Division 1, California.
Feb. 8, 1954.

HEADNOTES

(1)
Municipal Corporations § 97--General Powers--Governmental and Proprietary Powers.
Powers of a municipal corporation are denominated, on one hand, governmental, legislative or public, and on the other, proprietary or private.

(2)
Municipal Corporations § 439--Torts--Acts in Proprietary Capacity.
When operating a facility in a proprietary capacity, a municipality, like a private operator, owes invitees the duty of exercising ordinary care for their safety.

See **Cal.Jur.,** Municipal Corporations, § 343 et seq.; **Am.Jur.,** Municipal Corporations, § 572 et seq.

(3)
Municipal Corporations § 439--Torts--Acts in Governmental Capacity.
It is only where statutes give a right of action that an action can be maintained against a municipality to recover for damage inflicted by municipality in exercise of its governmental functions.

(4)
Municipal Corporations § 439--Torts--Acts in Governmental Capacity.
Liability of a municipality acting in its governmental capacity is confined to those instances set forth in Gov. Code, § 53051, and liability of officers and employees is governed by §§ 1953-2002 of that code.

(5)
Municipal Corporations § 441--Torts--What Are Proprietary Functions.
It is nature of municipal activity, not its location, nor by what department it is carried on, nor fact that facility may also be used for governmental purposes, that determines its proprietary character.

(6)
Municipal Corporations § 441--Torts--What Are Proprietary Functions.
Charging a fee for use of facility provided by municipality does not establish operation of facility as a proprietary function.

(7)
Municipal Corporations § 440, 441--Torts--What Are Governmental and Proprietary Functions.
Public education, training for self-preservation and good citizenship, and fostering and safeguarding of public health are governmental functions, whereas providing mere amusement or entertainment is not.

(8)
Municipal Corporations § 439--Torts--Acts in Proprietary Capacity.
Since primary purpose served by operation of a public golf course is pleasure or amusement, a city acts in its proprietary capacity in operating a municipal golf course; it therefore owes its invitees the duty of exercising ordinary care for their safety, and may be liable for injury suffered by an invitee when struck by a golf ball if injury proximately resulted from city's negligence.

(9)
Pleading § 103(1)--Demurrer--Amendment After Demurrer Sustained.
Unless it is clear that a complaint does not state a cause of action and cannot be so amended as to obviate objections thereto, it is error to refuse permission to amend.

SUMMARY

APPEAL from a judgment of the Superior Court of San Mateo County. Aylett R. Cotton, Judge. Reversed with directions.

Action for damages for personal injuries. Judgment for defendants after sustaining demurrer to complaint without leave to amend, reversed with directions.

COUNSEL
Saul N. Ross for Appellant.
Clark & Heafey, Edwin A. Heafey, Schofield & Hannegan and Gerald P. Martin for Respondents. ***105**

FINLEY, J. pro tem. *

This appeal is from a judgment entered in favor of respondents city of San Mateo and Matt Thiltgen after their demurrer to appellant's complaint was sustained without leave to amend.

It is alleged in the complaint that the city of San Mateo is a municipal corporation; that it operated the San Mateo Municipal Golf Course to which the public was invited; that at the time of appellant's injury defendant Tom Fry was employed by the city as a golf professional and respondent Matt Thiltgen as recreational director; that on May 24, 1952, after paying the required admission fee and completing a round of golf, appellant, while at or near her car in the parking lot provided by the city, was struck in the mouth and injured by a golf ball driven from the golf course by defendant Patsy Yeakey.

It is claimed by appellant that the city of San Mateo, Tom Fry and Matt Thiltgen are liable in damages because of their negligence in managing the golf course and in failing to provide proper protection and proper facilities for the protection of paying patrons. It is claimed in particular "that they permitted a dangerous and defective condition to prevail in failing to provide a fence of sufficient height to protect persons using the parking area and clubhouse from golf balls driven by persons using the golf course proper." (C.T. 6.) It is further alleged that for a long time prior to appellant's injury the claimed dangerous and defective condition existed and was known to employees and officers of the city of San Mateo, who possessed the authority to remedy the dangerous and defective condition but that they failed to do so. It is also alleged that appellant presented her claim against the city of San Mateo, Matt Thiltgen and Tom Fry, which claim was rejected.

The complaint is in two counts. In the first Patsy Yeakey is charged with negligence in driving the golf ball which struck appellant. She defaulted. The other defendants are all charged in the second cause of action. Tom Fry, the golf professional, filed his answer.

In sustaining the demurrer of the city of San Mateo and Matt Thiltgen without leave to amend the court ruled in effect that no cause of action founded upon negligence or upon violation of the public liability statutes could be stated against these defendants on account of injury sustained by a ***106** paying patron who had been struck by a golf ball driven by a third party. The question before us is not whether appellant's present complaint is demurrable, but whether in view of the facts alleged there could possibly be a cause of action stated against the demurring parties.

([1]) The powers of a municipal corporation are denominated, on the one hand, governmental, legislative or public; and on the other proprietary or private. (*Chafor v. City of Long Beach,* 174 Cal. 478 [163 P. 670, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; *Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336 [223 P.2d 639].)

Whether appellant could state a cause of action outside the scope of the public liability statutes against the city of San Mateo depends upon whether it is acting in its governmental capacity or in its proprietary capacity in operating a public golf course and in charging for the privilege of using its facilities. ([2]) The significance of this is founded on the well- settled rule that, "When operating a facility in a proprietary capacity, a city, as does a private operator, owes its invitees the duty of exercising ordinary care for their safety." (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, 341 [223 P.2d 639]; *Sanders v. City of Long Beach,* 54 Cal.App.2d 651 [129 P.2d 511].)

([3]) "It is only where statutes give a right of action that an action can be maintained [against a municipality] to recover damages inflicted by a city in the exercise of its governmental functions." (*Pittam v. City of Riverside,* 128 Cal.App. 57, at p. 61 [16 P.2d 768]; *Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]; *Miller v. City of Palo Alto,* 208 Cal. 74 [280 P. 108].) ([4]) In acting in its governmental capacity its liability is confined to those specific instances set forth in section 53051 of the Government Code, and liability of officers and

employees is governed by sections 1953-2002 of that code. Accordingly, there would be liability only for a dangerous or defective condition of public property, and then only if those authorized to remedy the condition had knowledge or notice and failed within a reasonable time to take action to remedy it, or to take action reasonably necessary to protect the public against the condition. If all of the required elements are present, liability would attach, regardless of whether the use to which it is being put is governmental or proprietary in nature. Respondents urge that the complaint does not and cannot state a cause of action against these defendants under ***107** Government Code, sections 1953 and 53051. One point urged is that it contains no allegation that the San Mateo Municipal Golf Course is public property owned by the city of San Mateo. It is admitted in respondents' brief, however (page 7), that "Some time subsequent to the adoption and filing of its Charter with the Secretary of State, the City of San Mateo became the owner and operator of the San Mateo Municipal Golf Course." Thus it is obvious that the complaint could have been amended to cure the defect complained of.

Respondents also urge that the only dangerous or defective condition relied upon by appellant to bring the cause of action under the Public Liability Acts is the height of the fence between the golf course proper and the parking lot. This is a specific allegation. It is, however, preceded by more general allegations, and in light of the decision in *Bauman v. San Francisco,* 42 Cal.App.2d 144 [108 P.2d 989], we cannot agree that the height of the fence is the only dangerous or defective condition complained of which could fall within the provisions of the Public Liability Acts.

In *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, action was brought under the Public Liability Act on behalf of a 5-year-old child who was struck on the head by a baseball while playing in a sand box in an area set aside for small children on a public playground. The balance of the playground was in lawn and there was no fence or other protection between the area set aside for the small children and the balance of the playground. The baseball was batted by one of a group of boys playing ball on the portion outside the small children's area.

In discussion the court used the following language, at page 152: "There can be no doubt that, under the terms of the Public Liability Act, the liability of the appellant, if any, must be predicated upon a showing that the playground was dangerous or defective." And further on: (p. 153) "It has frequently been stated that no hard-and-fast rule can be laid down as to what constitutes a dangerous or defective condition, but that each case must depend upon its own state of facts. [Citing cases.] It is also well-settled that as a general rule it is a question of fact for the jury to determine whether a given set of facts or circumstances creates a dangerous or defective condition. [Citing cases.]"

And further on in the opinion (p. 153): "The jury was justified in finding that the playground was dangerous and defective for any of the following reasons: That the playground ***108** was rendered dangerous or defective by the negligence of appellant in permitting the playing of hard baseball in dangerous proximity to the sand box; that under the circumstances here existing it was the duty of appellant, if hard baseball was to be permitted to be played in the north end of the field, to erect some barrier for the protection of those playing in the small children's section; or the appellant negligently failed to properly supervise the playground by either failing to prevent the boys from playing hard baseball in dangerous proximity to the small children's section or in negligently failing to keep the small children away from the sand box while hard baseball was being played nearby. There can be no doubt that a dangerous or defective condition can be created by the use or general plan of operation of government operated property, as well as by a structural defect." (Citing *Huff v. Compton City Grammar Sch. Dist.,* 92 Cal.App. 44 [267 P. 918].)

In *Fackrell v. City of San Diego,* 26 Cal.2d 196 [157 P.2d 625, 158 A.L.R. 625], the court in discussing the question of inherent danger in connection with the layout of a city street had this to say, at page 204: "If the improvement is designed to be used without inspection and maintenance and under varying conditions which are normally to be anticipated then it should be made reasonably safe for ordinary use under all of those conditions and if, under any one or more of them, it is, or naturally will become, unsafe for such use because of its planned design then it is inherently dangerous." (See, also, *Moore v. Burton,* 75 Cal.App. 395 [242 P. 902]; *Mulder v. City of Los Angeles,* 110 Cal.App. 663 [294 P. 485]; *George v. City of Los Angeles,* 11 Cal.2d 303 [79 P.2d 723]; *Sandstoe v. Atchison, T. & S. F. Ry. Co.,* 28 Cal.App.2d 215 [82 P.2d 216]; *Bigelow v. Ontario,* 37 Cal.App.2d 198 [99 P.2d 298].)

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On the question of whether liability attaches under the Public Liability Act where the act of a third person is partially responsible for injury, such as the act here of Patsy Yeakey in driving the golf ball, the court in *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, at page 154, has this to say: "The cases are legion that the question of proximate cause is primarily one of fact for the jury. The negligence of the defendant need not be the sole cause of the injury-as long as it is one of the proximate causes, the mere fact that such negligence concurs with that of an independent actor does not break the chain of causation. [Citing cases.] That this doctrine applies where the negligent act of a third person ***109** concurs with a dangerous or defective condition created by a city in causing an injury, so as to impose liability on the city under the Public Liability Act, was expressly held in *Bosqui v. City of San Bernardino,* 2 Cal.2d 747 [43 P.2d 547]." In the present case we have in substance an almost identical situation as in *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, excepting that a golf course instead of a children's playground is here involved.

It becomes obvious upon reading the complaint that it is vulnerable in its present form to special demurrer in not separately stating different causes of action. Assuming that the city was acting in its governmental capacity, it is also subject to general demurrer under the provisions of Government Code, section 53051, in not alleging or stating facts to show that the San Mateo Golf Course is public property, and further, in not alleging that the dangerous or defective condition complained of was a proximate cause of appellant's injury. There is nothing in the facts alleged, however, to warrant the trial court in sustaining the demurrer without leave to amend.

Turning now to the question of the city's liability for alleged negligence on the part of its agents, officers and employees, there seems to be no positive rule by which it can be determined whether certain functions performed by municipalities are governmental or proprietary in nature. It would not be liable for such negligence unless in operating the golf course it was acting in its proprietary capacity.

Among the activities engaged in by municipalities in California which were held to be proprietary in nature are: A community theater, together with the parking lot used in connection therewith (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336 [223 P.2d 639]; a municipal auditorium, *Chafor v. City of Long Beach,* 174 Cal. 478 [163 P. 670, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; the operation of a housing project, *Muses v. Housing Authority,* 83 Cal.App.2d 489 [189 P.2d 305]; a hospital, *Beard v. City & County of San Francisco,* 79 Cal.App.2d 753 [180 P.2d 744]).

Activities conducted by California municipalities which were held to be governmental in nature are: A public playground, (*Schmidt v. City of Vallejo,* 122 Cal.App. 5 [10 P.2d 107]; and *Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]); the operation of a miniature train in a public park, (*Meyer v. San Francisco,* 9 Cal.App.2d 361 [49 P.2d 893]); the operation of a swimming pool, (***110** *Crone v. City of El Cajon,* 133 Cal.App. 624 [24 P.2d 846]); the maintenance and operation of a boys' summer camp in the mountains, (*Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]); the operation of a drawbridge, (*Bettencourt v. State of California, ante,* p. 60 [266 P.2d 201].)

([5]) As stated in *Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, page 341 [223 P.2d 639], and approved in *Guidi v. State of California,* 41 Cal.2d 623 [262 P.2d 3]: "It is the nature of the activity, not its location, nor by what department carried on, nor the fact that the facility may also be used for governmental purposes, that determines its proprietary character."

Suffice it to say, without reproducing all of the reasoning that has gone into the subject, that no rule of thumb has been evolved which can be applied with certainty as each case arises. For the present at least, each new activity claiming the courts' attention must be decided on its own peculiar facts. The operation of public parks and playgrounds has been held to be governmental in nature because they promote the public health and partake in no degree of the nature of a private enterprise, (*Schmidt v. City of Vallejo, supra,* 122 Cal.App. 5, and *Kellar v. City of Los Angeles, supra,* 179 Cal. 605). In the Kellar case the principle was extended to cover a boys' summer camp, not in a public park or playground, but in the mountains, and maintained by the city, at which a weekly fee was charged for board, lodging and care. In *Crone v. City of El Cajon, supra,* 133 Cal.App. 624, it may perhaps be said that it was further extended to cover a swimming pool maintained by the city during the summer months "for the *pleasure* of its citizens." (Italics added.) (P. 626.) Small fees were charged but these were not enough to pay the cost of operation.

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([6]) Thus we see that the charging of a fee for use is not the determining factor nor, in view of the Crone case, is physical health alone the distinguishing factor, for it is stated in that case that the swimming pool was maintained "for the *pleasure* of its citizens." (Italics added.) It cannot be denied, however, that swimming is one of the more general and healthful of physical activities.

It would seem, too, that pleasure or amusement and not health would be the principal consideration in an instance such as in *Meyer v. San Francisco, supra,* 9 Cal.App.2d 361, where the city was held to be acting in its governmental capacity in operating a miniature train in one of the city parks. In ***111** principle we can see but little difference between the operation of a miniature train in a public park for the pleasure or entertainment of children and their parents and the operation by a city of a community theater with its accompanying parking lot, both situate in a public park, as in *Rhodes v. City of Palo Alto, supra,* 100 Cal.App.2d 336, or in the operation by the city of a municipal auditorium, as in *Chafor v. City of Long Beach, supra,* 174 Cal. 478. In each case the facility is operated primarily for the business, pleasure or entertainment of the public. Physical exercise or recreation is not involved in either. The only difference is that the miniature train is operated out in the open air while theater and auditorium activities take place inside. This might be considered a public health factor but it has not been so mentioned in the decisions.

It may be said that there is more similarity between the operation of a golf course and a swimming pool or boys' summer camp than there is between the operation of a golf course and a theater or auditorium. But what is the primary purpose behind each of them? ([7]) If any general conclusion is to be drawn from a consideration of the cases, it is that public education, training for self preservation and good citizenship, and the fostering and safeguarding of public health are governmental functions, while the providing of mere amusement or entertainment is not. (*Guidi v. State of California,* 41 Cal.2d 623 [262 P.2d 3].) It must be conceded that time spent by a boy in a summer camp is to a degree educational, and if nothing more, training in cooperation and good citizenship. It is a matter of self preservation that all who are physically able should learn to swim for who can tell when it may be a factor in saving not only the life of the swimmer, but also the lives of others.

The underlying purpose behind the playing of a game of golf, however, is undoubtedly pleasure or amusement. True, it provides some exercise and gets the player out into the fresh air and sunshine, but a walk in the park would serve the same purpose. Golf is a game of skill and rivalry, with a decided social aspect, and it is doubtful that most people who play consider health benefits to be the primary objective. Some even ride between shots in small vehicles designed for this purpose, and have caddies to carry their clubs and equipment, which indicates that exercise is for them not the foremost consideration. A golf course does not serve the public generally but only those who play the game. It is designed ***112** for a single purpose, while a public park is devoted to no specific use and serves many purposes for the public in general. Many private golf courses are maintained, some for profit, and others as an adjunct to private clubs or associations. It is true that a public golf course undoubtedly makes the sport available to a segment of our population to which private courses would not be accessible, but this alone does not constitute it a governmental function. It is actually in competition with other courses, and in its clubhouse commercial enterprises usually are carried on where commercial rates are charged for commodities and services.

([8]) We are satisfied, therefore, that the primary purpose served by the operation of a public golf course is pleasure or amusement, and that in the present case the city of San Mateo was acting in its proprietary capacity and therefore owed its invitees the duty of exercising ordinary care for their safety.

Nothing appears in the complaint to indicate that it cannot be amended, either as to the city of San Mateo or as to Matt Thiltgen. If essential facts are not alleged, and it is not obvious from the complaint that they cannot be supplied, or if distinct causes of action are not separately stated, these deficiencies can be corrected by amendment. (*Coleman v. City of Oakland,* 110 Cal.App. 715 [295 P. 59].) ([9]) Unless it is clear that a complaint does not state a cause of action and cannot be so amended as to obviate the objections thereto, it is error to refuse permission to amend. (*Hillman v. Hillman Land Co.,* 81 Cal.App.2d 174 [183 P.2d 730].)

The judgment is therefore reversed with instructions to the trial court to permit appellant to amend her complaint.

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Respondents' petition for a hearing by the Supreme Court was denied March 31, 1954. ***113**

Peters, P. J., and Bray, J., concurred.

Footnotes

* Assigned by Chairman of Judicial Council.

End of Document

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55 Cal.App.4th 976, 64 Cal.Rptr.2d 270, 97 Cal. Daily Op. Serv. 4510, 97 Daily Journal D.A.R. 7464

REDEVELOPMENT AGENCY OF THE CITY OF SAN MARCOS, Plaintiff and Appellant,
v.
CALIFORNIA COMMISSION ON STATE MANDATES, Defendant and Respondent;
CALIFORNIA DEPARTMENT OF FINANCE, Intervener and Respondent.

No. D026195.
Court of Appeal, Fourth District, Division 1, California.
May 30, 1997.

SUMMARY

The trial court denied a petition for a writ of administrative mandate brought by a city's redevelopment agency that challenged the California Commission on State Mandates' denial of the agency's test claim under Gov. Code, § 17550 et seq. (reimbursement of costs mandated by the state). In its claim, the agency sought a determination that the State of California should reimburse the agency for moneys transferred into its lowand moderate-income housing fund pursuant to Health & Saf. Code, §§ 33334.2 and 33334.3, of the Community Redevelopment Law. Those statutes require a 20 percent deposit of the particular form of financing received by the agency (tax increment financing generated from its project areas) for purposes of improving the supply of affordable housing. The agency claimed that this tax increment financing should not be subject to state control of the allocations made to various funds and that such control constituted a state-mandated new program or higher level of service for which reimbursement or subvention was required under Cal. Const., art. XIII B, § 6. The trial court found that the source of funds used by the agency was exempt, under Health & Saf. Code, § 33678, from the scope of Cal. Const., art. XIII B, § 6. (Superior Court of San Diego County, No. 686818, Sheridan E. Reed and Herbert B. Hoffman, Judges.)

The Court of Appeal affirmed. It held that under Health & Saf. Code, § 33678, which provides that tax increment financing is not deemed to be the "proceeds of taxes," the source of funds used by the agency was exempt from the scope of Cal. Const., art. XIII B, § 6. Although Cal. Const., art. XIII B, § 6, does not expressly discuss the source of funds used by an agency to fund a program, the historical and contextual context of this provision demonstrates that it applies only to costs recovered solely from tax revenues. Because of the nature of the financing they receive (i.e., tax increment financing), redevelopment agencies are not subject to appropriations limitations or spending caps, they do not expend any proceeds of taxes, and they do not raise general revenues for the local entity. Also, the state is not transferring any program for which it was formerly responsible. Therefore, the purposes of state subvention laws are not furthered by requiring reimbursement when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of Health & Saf. Code, §§ 33334.2 and 33334.3. (Opinion by Huffman, J., with Work, Acting P. J., and McIntyre, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
State of California § 11--Fiscal Matters--Subvention:Words, Phrases, and Maxims--Subvention.
"Subvention" generally means a grant of financial aid or assistance, or a subsidy.

(2)
State of California § 11--Fiscal Matters--Subvention--Judicial Rules.
Under Gov. Code, § 17559, review by administrative mandamus is the exclusive method of challenging a decision of the California Commission on State Mandates to deny a subvention claim. The determination whether the statutes at issue established a mandate under Cal. Const., art. XIII B, § 6, is a question of law. On appellate review, the following standards apply: Gov. Code, § 17559, governs the proceeding below and requires that the trial court review the decision of the commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, the appellate court is generally confined to inquiring whether substantial evidence supports the trial court's findings and judgment. However, the appellate court independently reviews the trial court's legal conclusions

about the meaning and effect of constitutional and statutory provisions.

(3a, 3b)
State of California § 11--Fiscal Matters--Subvention--State-mandated Costs--Statutory Set-aside Requirement for Local Redevelopment Agency's Tax Increment Financing.
The California Commission on State Mandates properly denied a test claim brought by a city's redevelopment agency seeking a determination that the state should reimburse the agency for moneys transferred into its lowand moderate-income housing fund pursuant to Health & Saf. Code, §§ 33334.2 and 33334.3, which require a 20 percent deposit of the particular form of financing received by the agency, i.e., tax increment financing generated from its project areas. Under Health & Saf. Code, § 33678, which provides that tax increment financing is not deemed to be the "proceeds of taxes," the source of funds used by the agency was exempt from the scope of Cal. Const., art. XIII B, § 6 (subvention). Although Cal. Const., art. XIII B, § 6, does not expressly discuss the source of funds used by an agency to fund a program, the historical and contextual context of this provision demonstrates that it applies only to costs recovered solely from tax revenues. Because of the nature of the financing they receive (i.e., tax increment financing), redevelopment agencies are not subject to appropriations limitations or spending caps, they do not expend any proceeds of taxes, and they do not raise general revenues for the local entity. Also, the state is not transferring any program for which it was formerly responsible. Therefore, the purposes of state subvention laws are not furthered by requiring reimbursement when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of Health & Saf. Code, §§ 33334.2 and 33334.3.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 123.]

(4)
Constitutional Law § 10--Construction of Constitutional Provisions-- Limitations on Legislative Powers.
The rules of constitutional interpretation require a strict construction of a constitutional provision that contains limitations and restrictions on legislative powers, because such limitations and restrictions are not to be extended to include matters not covered by the language used.

(5)
State of California § 11--Fiscal Matters--Subvention--Purpose of Constitutional Provisions.
The goal of Cal. Const., arts. XIII A and XIII B, is to protect California residents from excessive taxation and government spending. A central purpose of Cal. Const., art. XIII B, § 6 (reimbursement to local government of state-mandated costs), is to prevent the state's transfer of the cost of government from itself to the local level.

COUNSEL
Higgs, Fletcher & Mack and John Morris for Plaintiff and Appellant.
Gary D. Hori for Defendant and Respondent. ***979**
Daniel E. Lungren, Attorney General, Robert L. Mukai, Chief Assistant Attorney General, Linda A. Cabatic and Daniel G. Stone, Deputy Attorneys General, for Intervener and Respondent.

HUFFMAN, J.

The California Commission on State Mandates (the Commission) denied a test claim by the Redevelopment Agency of the City of San Marcos (the Agency) (Gov. Code, § 17550 et seq.), which sought a determination that the State of California should reimburse the Agency for moneys transferred into its Low and Moderate Income Housing Fund (the Housing Fund) pursuant to Health and Safety Code [1] sections 33334.2 and 33334.3. Those sections require a 20 percent deposit of the particular form of financing received by the Agency, tax increment financing generated from its project areas, for purposes of improving the supply of affordable housing. ([1])**(See fn. 2)**The Agency claimed that this tax increment financing should not be subject to state control of the allocations made to various funds and that such control constituted a state-mandated new program or higher level of service for which reimbursement or subvention was required under article XIII B of the California Constitution, section 6 (hereafter section 6; all further references to articles are to the California Constitution). [2] (Cal. Const., art. XVI, § 16; § 33670.)

The Agency brought a petition for writ of administrative mandamus to challenge the decision of the Commission. (Code Civ. Proc., § 1094.5; Gov. Code, § 17559.) The

superior court denied the petition, ruling that the source of funds used by the Agency for redevelopment, tax increment financing, was exempt pursuant to section 33678 from the scope of section 6, as not constituting "proceeds of taxes" which are governed by that section. The superior court did not rule upon the alternative grounds of decision stated by the Commission, i.e., the 20 percent set-aside requirement for lowand moderate-income housing did not impose a new program or higher level of service in an existing program within the meaning of section 6, and, further, there were no costs subject to reimbursement related to the Housing Fund because there was no net increase in the aggregate program responsibilities of the Agency.

The Agency appeals the judgment denying its petition for writ of mandate. For the reasons set forth below, we affirm. ***980**

I. Procedural Context

This test claim was litigated before the Commission pursuant to statutory procedures for determining whether a statute imposes state-mandated costs upon a local agency which must be reimbursed, through a subvention of funds, under section 6. (Gov. Code, § 17500 et seq.)[3] The Commission hearing consisted of oral argument on the points and authorities presented.

([2]) Under Government Code section 17559, review by administrative mandamus is the exclusive method of challenging a Commission decision denying a subvention claim. "The determination whether the statutes here at issue established a mandate under section 6 is a question of law. [Citation.]" (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109 [61 Cal.Rptr.2d 134, 931 P.2d 312].) On appellate review, we apply these standards: "Government Code section 17559 governs the proceeding below and requires that the trial court review the decision of the Commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, we are generally confined to inquiring whether substantial evidence supports the court's findings and judgment. [Citation.] However, we independently review the superior court's legal conclusions about the meaning and effect of constitutional and statutory provisions. [Citation.]" (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810 [53 Cal.Rptr.2d 521].)

II. Statutory Schemes

Before we outline the statutory provisions setting up tax increment financing for redevelopment agencies, we first set forth the Supreme Court's recent summary of the history and substance of the law applicable to state mandates, such as the Agency claims exist here: "Through adoption of Proposition 13 in 1978, the voters added article XIII A to the California Constitution, which 'imposes a limit on the power of state and local governments to ***981** adopt and levy taxes. [Citation.]' [Citation.] The next year, the voters added article XIII B to the Constitution, which 'impose[s] a complementary limit on the rate of growth in governmental spending.' [Citation.] These two constitutional articles 'work in tandem, together restricting California governments' power both to levy and to spend for public purposes.' [Citation.] Their goals are 'to protect residents from excessive taxation and government spending. [Citation.]' [Citation.]" (*County of San Diego v. State of California*, *supra*, 15 Cal.4th at pp. 80-81.)

Section 6, part of article XIII B and the provision here at issue, requires that whenever the Legislature or any state agency mandates a "new program or higher level of service" on any local government, " 'the state shall provide a subvention of funds to reimburse such local government for *the costs of such program* or increased level of service ....' " (*County of San Diego v. State of California*, *supra*, 15 Cal.4th at p. 81, italics added.) Certain exceptions are then stated, none of which is relevant here.[4]

In *County of San Diego v. State of California*, *supra*, 15 Cal.4th at page 81, the Supreme Court explained that section 6 represents a recognition that together articles XIII A and XIII B severely restrict the taxing and spending powers of local agencies. The purpose of the section is to preclude the state from shifting financial responsibility for governmental functions to local agencies, which are ill equipped to undertake increased financial responsibilities because they are subject to taxing and spending limitations under articles XIII A and XIII B. (*County of San Diego v. State of California*, *supra*, at p. 81.)

To evaluate the Agency's argument that the provisions of sections 33334.2 and 33334.3, requiring a deposit into the housing fund of 20 percent of the tax increment

financing received by the Agency, impose this type of reimbursable governmental program or a higher level of service under an existing program, we first review the provisions establishing financing for redevelopment agencies. Such agencies have no independent powers of taxation (***982** *Huntington Park Redevelopment Agency v. Martin* (1985) 38 Cal.3d 100, 106 [211 Cal.Rptr. 133, 695 P.2d 220]), but receive a portion of tax revenues collected by other local agencies from property within a redevelopment project area, which may result from the following scheme: "Redevelopment agencies finance real property improvements in blighted areas. Pursuant to article XVI, section 16 of the Constitution, these agencies are authorized to use tax increment revenues for redevelopment projects. The constitutional mandate has been implemented through the Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.). [¶] The Community Redevelopment Law authorizes several methods of financing; one is the issuance of tax allocation bonds. Tax increment revenue, the increase in annual property taxes attributable to redevelopment improvements, provides the security for tax allocation bonds. Tax increment revenues are computed as follows: The real property within a redevelopment project area is assessed in the year the redevelopment plan is adopted. Typically, after redevelopment, property values in the project area increase. The taxing agencies (e.g., city, county, school or special district) keep the tax revenues attributable to the original assessed value and pass the portion of the assessed property value which exceeds the original assessment on to the redevelopment agency. (Health & Saf. Code, §§ 33640, 33641, 33670, 33675). In short, tax increment financing permits a redevelopment agency to take advantage of increased property tax revenues in the project areas without an increase in the tax rate. This scheme for redevelopment financing has been a part of the California Constitution since 1952. (Cal. Const., art. XVI, § 16.)" (*Brown v. Community Redevelopment Agency* (1985) 168 Cal.App.3d 1014, 1016-1017 [214 Cal.Rptr. 626].) [5]

In *Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pages 1016-1018, the court determined that by enacting section 33678, the Legislature interpreted article XIII B of the Constitution as not broad enough in reach to cover the raising or spending of tax increment revenues by redevelopment agencies. Specifically, the court decided the funds a redevelopment agency receives from tax increment financing do not constitute "proceeds of taxes" subject to article XIII B appropriations limits. (*Brown v. Community Redevelopment Agency*, *supra*, at p. 1019). [6] This ruling was based on section 33678, providing in pertinent part: "This section implements and fulfills the intent ... of Article XIII B and ***983** Section 16 of Article XVI of the California Constitution. *The allocation and payment to an agency of the portion of taxes specified in subdivision (b) of Section 33670 for the purpose of paying principal of, or interest on ... indebtedness incurred for redevelopment activity ... shall not be deemed the receipt by an agency of proceeds of taxes levied by or on behalf of the agency within the meaning of or for the purposes of Article XIII B ... nor shall such portion of taxes be deemed receipt of proceeds of taxes by, or an appropriation subject to limitation of, any other public body within the meaning or for purposes of Article XIII B* ... or any statutory provision enacted in implementation of Article XIII B. *The allocation and payment to an agency of this portion of taxes shall not be deemed the appropriation by a redevelopment agency of proceeds of taxes levied by or on behalf of a redevelopment agency within the meaning or for purposes of Article XIII B of the California Constitution*." (Italics added.)

In *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 451 [170 Cal.Rptr. 232], the court defined "proceeds of taxes" in this way: "Under article XIII B, with the exception of state subventions, the items that make up the scope of ' "proceeds of taxes" ' concern charges levied to raise *general revenues* for the local entity. ' "Proceeds of taxes," ' in addition to 'all tax revenues' includes 'proceeds ... from ... regulatory licenses, user charges, and user fees [*only*] *to the extent that such proceeds exceed the costs reasonably borne by such entity in providing the regulation, product or service*....' (§ 8, subd. (c).) (Italics added.) Such 'excess' regulatory or user fees are but *taxes* for the raising of general revenue for the entity. [Citations.] Moreover, to the extent that an assessment results in revenue above the cost of the improvement or is of general public benefit, it is no longer a special assessment but a tax. [Citation.] *We conclude 'proceeds of taxes' generally contemplates only those impositions which raise general tax revenues for the entity.*" (Italics added.) [7]

([3a]) In light of these interrelated sections and concepts, our task is to determine whether the 20 percent Housing Fund set-aside requirement of a redevelopment agency's tax increment financing qualifies under section 6 as a "cost" of a program. As will be explained, we agree with

the trial court that the resolution of this issue is sufficient to dispose of the entire matter, and ***984** accordingly we need not discuss the alternate grounds of decision stated by the Commission. [8]

III. Housing Fund Allocations: Reimbursable Costs?

1. *Arguments*

The Agency takes the position that the language of section 33678 is simply inapplicable to its claim for subvention of funds required to be deposited into the Housing Fund. It points out that section 6 expressly lists three exceptions to the requirement for subvention of funds to cover the costs of state-mandated programs: (a) Legislative mandates requested by the local agency affected; (b) legislation defining or changing a definition of a crime; or (c) pre-1975 legislative mandates or implementing regulations or orders. (See fn. 4, *ante*.) None of these exceptions refers to the source of the funding originally used by the agency to pay the costs incurred for which reimbursement is now being sought. Thus, the agency argues it is immaterial that under section 33678, *for purposes of appropriations limitations*, tax increment financing is not deemed to be the "proceeds of taxes." (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1017-1020.) The Agency would apply a "plain meaning" rule to section 6 (see, e.g., *Davis v. City of* Berkeley (1990) 51 Cal.3d 227, 234 [272 Cal.Rptr. 139, 794 P.2d 897]) and conclude that the source of the funds used to pay the program costs up front, before any subvention, is not stated in the section and thus is not relevant.

As an illustration of its argument that the source of its funds is irrelevant under section 6, the Agency cites to Government Code section 17556. That section is a legislative interpretation of section 6, creating several classes of state-mandated programs for which no state reimbursement of local agencies for costs incurred is required. In *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487 [280 Cal.Rptr. 92, 808 P.2d 235], the Supreme Court upheld the facial constitutionality of Government Code section 17556, subdivision (d), which disallows state subvention of funds where the local government is authorized to collect service charges or fees in connection with a mandated program. The court explained that section 6 "was designed to protect the tax revenues of local governments from state mandates that ***985** would require expenditure of such revenues." (*County of Fresno v. State of California*, *supra*, at p. 487.) Based on the language and history of the measure, the court stated, "Article XIII B of the Constitution, however, was not intended to reach beyond taxation." (*Ibid.*) The court therefore concluded that in view of its textual and historical context, section 6 "requires subvention only when the costs in question can be recovered *solely from tax revenues*." (*Ibid.*, original italics.) Interpreting section 6, the court stated: "Considered within its context, the section effectively construes the term 'costs' in the constitutional provision as excluding expenses that are recoverable from sources other than taxes." (*Ibid.*) No subvention was required where the local authority could recover its expenses through fees or assessments, not taxes.

2. *Interpretation of Section 6*

Here, the Agency contends the authority of *County of Fresno v. State of California*, *supra*, *53* Cal.3d 482, should be narrowly read to cover only self-financing programs, and the Supreme Court's broad statements defining "costs" in this context read as mere dicta. It also continues to argue for a "plain meaning" reading of section 6, which it reiterates does not expressly discuss the source of funds used by an agency to pay the costs of a program before any reimbursement is sought. We disagree with both of these arguments. The correct approach is to read section 6 in light of its historical and textual context. ([4]) The rules of constitutional interpretation require a strict construction of section 6, because constitutional limitations and restrictions on legislative powers are not to be extended to include matters not covered by the language used. (*City of San Jose v. State of California*, *supra*, 45 Cal.App.4th at pp. 1816-1817.)

([5]) The goals of articles XIII A and XIII B are to protect California residents from excessive taxation and government spending. (*County of Los Angeles v. State of California*, *supra*, 15 Cal.4th at p. 81.) A central purpose of section 6 is to prevent the state's transfer of the cost of government from itself to the local level. (*City of Sacramento v. State of California*, *supra*, 50 Cal.3d at p. 68.) ([3b]) The related goals of these enactments require us to read the term "costs" in section 6 in light of the enactment as a whole. The "costs" for which the Agency is seeking reimbursement are its deposits of tax increment financing proceeds into the Housing Fund. Those tax increment financing proceeds are normally received pursuant to the Community Redevelopment Law

(§ 33000 et seq.) when, after redevelopment, the taxing agencies collect and keep the tax revenues attributable to the original assessed value and pass on to the redevelopment agency the portion of the ***986** assessed property value which exceeds the original assessment. (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1016-1017.) Is this the type of expenditure of tax revenues of local governments, upon state mandates which require use of such revenues, against which section 6 was designed to protect? (*County of Fresno v. State of California*, *supra*, 53 Cal.3d at p. 487.)

3. *Relationship of Appropriations Limitations and Subvention*

We may find assistance in answering this question by looking to the type of appropriations limitations imposed by article XIII B. In *County of Placer v. Corin*, *supra*, 113 Cal.App.3d at page 447, the court described the discipline imposed by article XIII B in this way: "[A]rticle XIIIB does not limit the ability to expend government funds collected from all sources. Rather, the appropriations limit is based on 'appropriations subject to limitation,' which consists primarily of the authorization to expend during a fiscal year the 'proceeds of taxes.' (§ 8, subd. (a).) As to local governments, limits are placed only on the authorization to expend the proceeds of taxes levied by that entity, in addition to proceeds of state subventions (§ 8, subd. (c)); no limitation is placed on the expenditure of those revenues that do not constitute 'proceeds of taxes.' „ [9]

Because of the nature of the financing they receive, tax increment financing, redevelopment agencies are not subject to this type of appropriations limitations or spending caps; they do not expend any "proceeds of taxes." Nor do they raise, through tax increment financing, "*general revenues* for the local entity." (*County of Placer v. Corin*, *supra*, 113 Cal.App.3d at p. 451, original italics.) The purpose for which state subvention of funds was created, to protect local agencies from having the state transfer its cost of government from itself to the local level, is therefore not brought into play when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of sections 33334.2 and 33334.3. (See *City of Sacramento v. State of California*, *supra*, 50 Cal.3d at p. 68.) The state is not transferring to the Agency the operation and administration of a program for which it was formerly legally and financially ***987** responsible. (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 817 [38 Cal.Rptr.2d 304].) [10]

For all these reasons, we conclude the same policies which support exempting tax increment revenues from article XIII B appropriations limits also support denying reimbursement under section 6 for this particular allocation of those revenues to the Housing Fund. Tax increment financing is not within the scope of article XIII B. (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1016-1020.) Section 6 "requires subvention only when the costs in question can be recovered *solely from tax revenues*." (*County of Fresno v. State of California*, *supra*, 53 Cal.3d at p. 487, original italics.) No state duty of subvention is triggered where the local agency is not required to expend its proceeds of taxes. Here, these costs of depositing tax increment revenues in the Housing Fund are attributable not directly to tax revenues, but to the benefit received by the Agency from the tax increment financing scheme, which is one step removed from other local agencies' collection of tax revenues. (§ 33000 et seq.) Therefore, in light of the above authorities, this use of tax increment financing is not a reimbursable "cost" under section 6. We therefore need not interpret any remaining portions of section 6.

Disposition

The judgment is affirmed.

Work, Acting P. J., and McIntyre, J., concurred.

Appellant's petition for review by the Supreme Court was denied September 3, 1997.

Footnotes

1 All further statutory references are to the Health and Safety Code unless otherwise noted.

2 " 'Subvention' generally means a grant of financial aid or assistance, or a subsidy. [Citation.]" (*Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1577 [15 Cal.Rptr.2d 547].)

3 In our prior opinion issued in this case, we determined the trial court erred when it denied the California Department of Finance (DOF) leave to intervene as an indispensable party and a real party in interest in the mandamus proceeding. (*Redevelopment Agency v. Commission on State Mandates* (1996) 43 Cal.App.4th 1188, 1194-1199 [51 Cal.Rptr.2d 100].) Thus, DOF is now a respondent on this appeal, as is the Commission (sometimes collectively referred to as respondents). However, our decision in that case was a collateral matter and does not assist us on the merits of this proceeding.

4 Section 6 lists the following exclusions to the requirement for subvention of funds: "(a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." In *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 69 [266 Cal.Rptr. 139, 785 P.2d 522], the Supreme Court identified these items as exclusions of otherwise reimbursable programs from the scope of section 6. (See also Gov. Code, § 17514, definition of "costs mandated by the state," using the same "new program or higher level of service" language of section 6.)

5 Section 33071 in the Community Redevelopment Law provides that a fundamental purpose of redevelopment is to expand the supply of lowand moderate-income housing, as well as expanding employment opportunities and improving the social environment.

6 The term of art, "proceeds of taxes," is defined in article XIII B, section 8, as follows: (c) " *'Proceeds of taxes' shall include, but not be restricted to, all tax revenues* and the proceeds to an entity of government, from (1) regulatory licenses, user charges, and user fees to the extent that those proceeds exceed the costs reasonably borne by that entity in providing the regulation, product, or service, and (2) the investment of tax revenues. With respect to any local government, 'proceeds of taxes' shall include subventions received from the state, other than pursuant to Section 6, and, with respect to the state, proceeds of taxes shall exclude such subventions." (Italics added.)

7 The issues before the court in *County of Placer v. Corin*, *supra*, 113 Cal.App.3d 443 were whether special assessments and federal grants should be considered proceeds of taxes; the court held they should not. Section 6 is not discussed; the court's analysis of other concepts found in article XIII B is nevertheless instructive.

8 The alternate grounds of the Commission's decision were that there were no costs subject to reimbursement related to the Housing Fund because there was no net increase in the aggregate program responsibilities of the Agency, and that the set-aside requirement did not constitute a mandated "new program or higher level of service" under this section.

9 The term of art, "appropriations subject to limitation," is defined in article XIII B, section 8, as follows: [¶] (b) " 'Appropriations subject to limitation' of an entity of local government means any authorization to expend during a fiscal year *the proceeds of taxes levied by or for that entity* and the proceeds of state subventions to that entity (other than subventions made pursuant to Section 6) exclusive of refunds of taxes." (Italics added.)

10 We disagree with respondents that the legislative history of sections 33334.2 and 33334.3 is of assistance here, specifically, that section 23 of the bill creating these sections provided that no appropriations were made by the act, nor was any obligation for reimbursements of local agencies created for any costs incurred in carrying out the programs created by the act. (Stats. 1976, ch. 1337, § 23, pp. 6070-6071.) As stated in *City of San Jose v. State of California*, *supra*, 45 Cal.App.4th at pages 1817-1818, legislative findings regarding mandate are irrelevant to the issue to be decided by the Commission, whether a state mandate exists.

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33 Cal.4th 859
Supreme Court of California

SAN DIEGO UNIFIED SCHOOL DISTRICT, Plaintiff and Respondent,
v.
COMMISSION ON STATE MANDATES, Defendant and Appellant;
California Department of Finance, Real Party in Interest and Appellant.

No. S109125.
|
Aug. 2, 2004.

Synopsis

Background: School district petitioned for writ of administrative mandate to require the Commission on State Mandates to approve test claim for costs of mandatory and discretionary expulsion of students. The Superior Court, San Diego County, No. GIC737638, Linda B. Quinn, J., granted the petition. Commission and Department of Finance appealed. The Court of Appeal affirmed. Review was granted, superseding opinion of Court of Appeal.

Holdings: The Supreme Court, George, C.J., held that:

[1] all hearing costs incurred by district as result of mandatory actions related to expulsions for student's possession of firearm, at time relevant to this proceeding, constituted "higher level of service" within meaning of state constitutional provision, and thus were fully reimbursable, and

[2] hearing costs incurred by district as result of actions related to discretionary expulsions did not constitute "new program or higher level of service," and, in any event, did not trigger right to reimbursement, as costs of procedures exceeding federal due process requirements were de minimis.

Affirmed in part and reversed in part.

Opinion, 122 Cal.Rptr.2d 614, superseded.

Attorneys and Law Firms

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***866** Steven M. Woodside, County Counsel (Sonoma) as Amicus Curiae on behalf of Plaintiff and Respondent.

Opinion

****591** GEORGE, C.J.

Article XIII B, section 6, of the California Constitution provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service...." [1] (Hereafter article XIII B, section 6.)

Plaintiff San Diego Unified School District (District), like all other public school districts in the state, is, and was at the time relevant in this proceeding, governed by statutes that regulate the expulsion of students. (Ed.Code, § 48900 et seq.) Whenever an expulsion recommendation is made (and before a student may be expelled), the District is required by Education Code section 48918 to afford the student a hearing with various procedural protections—including notice of the hearing and the right to representation by *****468** counsel, preparation of findings of fact, notices related to any expulsion and the right of appeal, and preparation of a hearing

record. Providing these procedural protections requires the District to expend funds, for which the District asserts a right to reimbursement from the state pursuant to article XIII B, section 6, and implementing legislation, Government Code section 17500 et seq.

We granted review to consider two questions: (1) Are the hearing costs incurred as a result of the *mandatory* actions related to expulsions that are compelled by Education Code section 48915 fully reimbursable—or are those hearing costs reimbursable only to the extent such costs are attributable to hearing procedures that exceed the procedures required by federal law? (2) Are any hearing costs incurred in carrying out expulsions that are *discretionary* under Education Code section 48915 reimbursable? After we granted review and filed our decision in *Department of Finance v. Commission on State Mandates* (*Kern High School Dist.*) (2003) 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203 (*Kern High School Dist.*), we added the following preliminary question to be addressed: Do the Education Code ***867** statutes cited above establish a "new program" or "higher level of service" under article XIII B, section 6? Finally, we also asked the parties to brief the effect of the decision in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, on the present case.

We conclude that Education Code section 48915, insofar as it compels suspension and mandates a recommendation of expulsion for certain offenses, constitutes a "higher level of service" under article XIII B, section 6, and imposes a reimbursable state mandate for *all* resulting hearing costs—even those costs attributable to procedures required by federal law. In this respect, we shall affirm the judgment of the Court of Appeal.

We also conclude that *no* hearing costs incurred in carrying out those expulsions that are *discretionary* under Education Code section 48915—including costs related to hearing procedures claimed to exceed the requirements of federal law—are reimbursable. As we shall explain, to the extent that statute makes expulsions discretionary, it does not reflect a new program or a higher level of service related to an existing program. Moreover, even if the hearing *procedures* set forth in Education Code section *48918* constitute a new program or higher level of service, we conclude that *this* statute does not trigger any right to reimbursement, because the hearing provisions that assertedly exceed federal requirements are merely incidental to fundamental federal due process requirements and the added costs of such procedures are de minimis. For these reasons, we conclude such hearing provisions should be treated, for purposes of ruling upon a request for reimbursement, as part of the nonreimbursable underlying *federal* mandate and not as a state mandate. Accordingly, we shall reverse the judgment of the Court of Appeal insofar as it compels reimbursement ****592** of any costs incurred pursuant to discretionary expulsions.

I

A. *Education Code sections 48918 and 48915*

We first describe the relevant provisions of two statutes —Education Code sections 48918 and 48915—pertaining to the expulsion of students from public schools.

Education Code section 48918 specifies the right of a student to an expulsion hearing and sets forth procedures that a school district must ***868** follow when conducting *****469** such a hearing. (Stats.1990, ch. 1231, § 2, pp. 5136–5139.) [2]

In identifying the right to a hearing, subdivision (a) of this statute declares that a student is "entitled" to an expulsion hearing within 30 days after the school principal determines that the student has committed an act warranting expulsion. [3] *In practical effect, this means that whenever a school principal makes such a determination and recommends to the school board that a student be expelled, an expulsion hearing is mandated.* [4]

In specifying the substantive and procedural requirements for such an expulsion hearing, Education Code section 48918 sets forth rules and procedures, some of which, the parties agree, codify requirements of federal due process and some of which may exceed those requirements. [5] These rules and procedures govern, among other things, notice of a hearing and the right to representation by counsel, preparation of findings of fact, notices related to the expulsion and the right of appeal, and preparation of a hearing record. (See § 48918, subds. (a) through former subd. (j) (currently subd. (k).)

***869** The second statute at issue in this matter is Education Code section 48915. Discrete subdivisions of

this statute address circumstances in which a principal *must* recommend to the school board that a student be expelled, and circumstances in which a principal *may* recommend that a student be expelled.

First, there is what the parties characterize as the "mandatory expulsion provision," Education Code section 48915, former subdivision (b). As it read during the time relevant in this proceeding (mid–1993 *****470** through mid–1994), this subdivision (1) compelled a school principal to *immediately suspend* any ****593** student found to be in possession of a firearm at school or at a school activity off school grounds, and (2) mandated a *recommendation* to the school district governing board that the student be *expelled.* The provision further required the governing board, upon confirmation of the student's knowing possession of a firearm, either to expel the student or "refer" him or her to an alternative education program housed at a separate school site. [6] (Compare this former provision with *current* Ed.Code, § 48915, subds. (c) and (d).) [7]

*****471** ***870** This provision, as it read at the time relevant here, did not mandate expulsion per se [8]—but it *did* require immediate suspension followed by a mandatory expulsion recommendation (and it provided that a student found by the governing board to have possessed ****594** a firearm would be removed from the school site by limiting disposition to either expulsion or "referral" to an alternative school). Moreover, as noted above, whenever expulsion is recommended a student has a right to an expulsion hearing. Accordingly, it is appropriate to characterize the former provision as *mandating* immediate suspension, a recommendation of expulsion, *and hence, an expulsion hearing.* For convenience, we accept the parties' description of this aspect of Education Code section 48915 as constituting a "mandatory expulsion provision."

The second aspect of Education Code section 48915 relevant here consists of what we shall call the "discretionary expulsion provision." (*Id.,* former subd. (c), subsequently subd. (d), currently subd. (e).) During the period relevant in this proceeding (as well as currently), this subdivision of Education Code section 48915 recognized that a principal possesses *discretion* to recommend that a student be expelled for specified conduct other than firearm possession (conduct such as damaging or stealing school property or private property, using or selling illicit drugs, receiving stolen property, possessing tobacco or drug paraphernalia, or engaging in disruptive behavior). The former provision (like the current provision) further specified that the school district governing board "may" order a student expelled upon finding that the ***871** student, while at school or at a school activity off school grounds, engaged in such conduct. [9]

*****472** ***872** ****595** B. *Proceedings under Government Code section 17500 et seq.*

Procedures governing the constitutional requirement of reimbursement under article XIII B, section 6, are set forth in Government Code section 17500 et seq. The Commission on State Mandates (Commission) (Gov.Code, § 17525) is charged with the responsibility of hearing and deciding, subject to judicial review by an administrative writ of mandate, claims for reimbursement made by local governments or school districts. (Gov.Code, § 17551.) Government Code section 17561, subdivision (a), provides that the "state shall reimburse each ... school district for all 'costs mandated by the state,' as defined in section 17514." Government Code section 17514, in turn, defines "costs mandated by the state" to mean, in relevant part, "any increased costs which a ... school district is required to incur ... as a result of any statute ... which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution." Finally, Government Code section 17556 sets forth circumstances in which there shall be no reimbursement, including, under subdivision (c), circumstances in which "[t]he statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or *****473** executive order mandates costs which exceed the mandate in that federal law or regulation."

In March 1994, the District filed a "test claim" with the Commission, asserting entitlement to reimbursement for the costs of hearings provided with respect to both categories of cases described above—that is, those hearings triggered by mandatory expulsion recommendations, and those hearings resulting from discretionary expulsion recommendations. (See Gov.Code, § 17521; *Kinlaw v. State of California* (1991) 54

Cal.3d 326, 331–333, 285 Cal.Rptr. 66, 814 P.2d 1308.) [10] The District sought reimbursement for costs incurred between July 1, 1993, and June 30, 1994, under statutes effective through the latter date.

In August 1998, after holding hearings on the District's claim (as amended in April 1995, to reflect legislation that became effective in 1994), the Commission issued a "Corrected Statement of Decision" in which it determined that Education Code section 48915's requirement of suspension and a ***873** mandatory recommendation of expulsion for firearm possession constituted a "new program or higher level of service," and found that because costs related to some of the resulting hearing provisions set forth in Education Code section 48918 (primarily various notice, right of inspection, and recording provisions) exceeded the requirements of federal due process, those additional hearing costs constituted reimbursable state-mandated costs. [11] As to the vast majority of the remaining ****596** hearing procedures triggered by Education Code section 48915's requirement of suspension and a mandatory recommendation of expulsion for firearm possession—for example, procedures governing such matters as the hearing itself and the board's decision; a statement of facts and charges; notice of the right to representation by counsel; written findings; recording of the hearing; and the making of a record of the expulsion—the Commission found that those procedures were enacted to comply with federal due process requirements, and hence fell within the exception set forth in Government Code section 17556, subdivision (c), and *****474** did not impose a reimbursable state mandate. The Commission further found that with respect to Education Code section 48915's *discretionary* expulsions, there was no right to reimbursement for costs incurred in holding expulsion hearings, because such expulsions do not constitute a new program or higher level of service, and in any event such expulsions are not *mandated* by the state, but instead represent a choice by the principal and the school board.

In October 1999, the District brought this proceeding for an administrative writ of mandate challenging the Commission's decision. The trial court issued a writ commanding the Commission to render a new decision finding (i) all costs associated with hearings triggered by compulsory suspensions and mandatory expulsion recommendations are reimbursable, and (ii) hearing costs associated with discretionary expulsions are reimbursable to the limited ***874** extent that required hearing procedures exceed federal due process mandates. The Commission (defendant) and the Department of Finance (real party in interest, hereafter Department) appealed, and the Court of Appeal affirmed the judgment rendered by the trial court.

II

A. *Costs associated with hearings triggered by compulsory suspensions and mandatory expulsion recommendations*

1. *"New program or higher level of service"?*

We address first the issue that we asked the parties to brief: Does Education Code section 48915, former subdivision (b) (current subds. (c) & (d)), which mandated suspension and an expulsion recommendation for those students who possess a firearm at school or at a school activity off school grounds, and which also required a school board, if it found the charge proved, either to expel or to "refer" such a student to an alternative educational program housed at a separate school site, constitute a "new program or higher level of service" under article XIII B, section 6 of the state Constitution, and under Government Code section 17514?

We addressed the meaning of the Constitution's phrase "new program or higher level of service" in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202 (*County of Los Angeles*). That case concerned whether local governments are entitled to reimbursement for costs incurred in complying with legislation that required local agencies to provide the same increased level of workers' compensation benefits for their employees as private individuals or organizations were required to provide for their employees. We stated:

"Looking at the language of [article XIII B, section 6] then, it seems clear that by itself the term 'higher level of service' is meaningless. It must be read in conjunction with the predecessor phrase 'new program' to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing 'programs.' But the term 'program' itself is not defined in article XIII B. What programs ****597** then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood

meanings of the term—[(1)] programs that carry out the governmental function of providing services to the public, or [(2)] laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents *****475** and entities in the state." (*County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.)

***875** We continued in *County of Los Angeles:* "The concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. In their ballot arguments, the proponents of article XIII B explained section 6 to the voters: 'Additionally, this measure: (1) Will not allow the state government to *force programs* on local governments without the state paying for them.' (Ballot Pamp., Proposed Amend. to Cal. Const. with arguments to voters, Spec. Statewide Elec. (Nov. 6, 1979) p. 18. Italics added.) In this context the phrase 'to force programs on local governments' confirms that *the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities.*" (*County of Los Angeles, supra,* 43 Cal.3d 46, 56–57, 233 Cal.Rptr. 38, 729 P.2d 202, italics added.)

It was clear in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, that the law at issue did not meet the second test for a "program or higher level of service"—it did not implement a state policy by imposing unique requirements upon local governments, but instead applied workers' compensation contribution rules generally to all employers in the state. Nor, we held, did the law requiring local agencies to shoulder a general increase in workers' compensation benefits amount to a reimbursable "program or higher level of service" under the first test described above. (*Id.,* at pp. 57–58, 233 Cal.Rptr. 38, 729 P.2d 202.) The law increased the cost of employing public servants, but it did not in any tangible manner increase the level of service provided by those employees to the public.

We reaffirmed and applied the test set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, in *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 244 Cal.Rptr. 677, 750 P.2d 318 (*Lucia Mar*). The state law at issue in *Lucia Mar* required local school districts to pay a portion of the cost of educating pupils in *state* schools for the severely handicapped—costs that the state previously had paid in full.

We determined that the contributions called for under the law were used to fund a "program" within both definitions of that term set forth in *County of Los Angeles.* (*Lucia Mar, supra,* 44 Cal.3d 830, 835, 244 Cal.Rptr. 677, 750 P.2d 318.) We stated: "[T]he education of handicapped children is clearly a governmental function providing a service to the public, and the [state law] imposes requirements on school districts not imposed on all the states residents. Nor can there be any doubt that although the schools for the handicapped have been operated by the state for many years, the program was new insofar as plaintiffs are ***876** concerned, since at the time [the state law] became effective they were not required to contribute to the education of students from their districts at such schools. [ ] ... To hold, under the circumstances of this case, that a shift in funding of an existing program from the state to a local entity is not a new program as to the local agency would, we think, violate the intent underlying section 6 of article XIII B.... Section 6 was intended to preclude the state from shifting to local *****476** agencies the financial responsibility for providing public services in view of ... restrictions on the taxing and spending power of the local entities." (*Lucia Mar, supra,* 44 Cal.3d 830, 835–836, 244 Cal.Rptr. 677, 750 P.2d 318; see also ****598** *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 98, 61 Cal.Rptr.2d 134, 931 P.2d 312 [legislation excluding indigents from Medi–Cal coverage transferred obligation for such costs from state to counties, and constituted a reimbursable "new program or higher level of service"].)

We again applied the alternative tests set forth in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, in *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*). In that case we considered whether a state law implementing federal "incentives" that encouraged states to extend unemployment insurance coverage to all public employees constituted a program or higher level of service under article XIII B, section 6. We concluded

that it did not because, as in *County of Los Angeles,* (1) providing unemployment compensation protection to a city's own employees was not a service to the public; and (2) the statute did not apply uniquely to local governments—indeed, the same requirements previously had been applied to most employers, and extension of the requirement (by eliminating a prior exemption for local governments) merely placed local government employers on the same footing as most private employers. (*City of Sacramento, supra,* 50 Cal.3d at pp. 67–68, 266 Cal.Rptr. 139, 785 P.2d 522.)

Subsequently, the Court of Appeal in *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754 (*City of Richmond*), following *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, and *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, concluded that requiring local governments to provide death benefits to local safety officers, under both the Public Employees Retirement System and the workers' compensation system, did not constitute a higher level of service to the public. The Court of Appeal arrived at that determination even though—as might also have been argued in *County of Los Angeles* and *City of Sacramento*—such benefits may "generate a higher quality of local safety officers" and thereby, in a general and indirect sense, provide the public with a "higher level of service" by its employees. (*City of Richmond, supra,* 64 Cal.App.4th 1190, 1195, 75 Cal.Rptr.2d 754.)

Viewed together, these cases (*County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, and *City of Richmond,* ***877** *supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754) illustrate the circumstance that simply because a state law or order may *increase the costs* borne by local government *in providing services,* this does not necessarily establish that the law or order constitutes an *increased or higher level* of the resulting "service to the public" under article XIII B, section 6, and Government Code section 17514. [12]

*****477** By contrast, Courts of Appeal have found a reimbursable "higher level of service" concerning an existing "program" when a state law or executive order mandates not merely some change that increases the cost of providing services, but an increase in the actual level or quality of governmental services provided. In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537–538, 234 Cal.Rptr. 795 (*Carmel Valley*), for example, an executive order required that county firefighters be provided with protective clothing and safety equipment. Because this increased safety equipment apparently was designed to result in more effective fire protection, the mandate evidently was intended to produce a higher level of service to the public, thereby satisfying the first alternative test set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. Similarly, in ****599** *Long Beach Unified School District v. State of California* (1990) 225 Cal.App.3d 155, 173, 275 Cal.Rptr. 449 (*Long Beach*), an executive order required school districts to take specific steps to measure and address racial segregation in local public schools. The appellate court held that this constituted a "higher level of service" to the extent the order's requirements exceeded federal constitutional and case law requirements by mandating school districts to undertake defined remedial actions and measures that were merely advisory under prior governing law.

[1] The District and the Commission assert that the "mandatory" aspect of Education Code section 48915, insofar as it compels suspension and mandates an expulsion recommendation for firearm possession (and thereafter restricts the board's options to expulsion or referral to an off-site alternative school), carries out a governmental function of providing services to the public and hence constitutes an increased or higher level of service concerning an existing program under the first alternative test of *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. They argue, in essence, that the present matter is more analogous to the latter cases ***878** (*Carmel Valley, supra,* 190 Cal.App.3d 521, 234 Cal.Rptr. 795, and *Long Beach, supra,* 225 Cal.App.3d 155, 275 Cal.Rptr. 449)—both of which involved measures designed to increase the level of governmental service provided to the public—than to the former cases (*County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, and *City of Richmond, supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754)—in which the cost of employment was increased but the resulting governmental services themselves were not directly enhanced or increased. As we shall explain, we agree with the District and the Commission.

The statutory requirements here at issue—immediate suspension and mandatory recommendation of expulsion for students who possess a firearm, and the limitation upon the ensuing options of the school board (expulsion or referral)—reasonably are viewed as providing a "higher level of service" to the public under the commonly understood sense of that term: (i) the requirements are new in comparison with the preexisting scheme in view of the circumstance that they did not exist prior to the enactment of Statutes of 1993, chapters 1255 (Assem. Bill No. 342 (1993–1994 Reg. Sess.) (Assembly Bill No. 342)) and 1256 (Senate Bill *****478** No. 1198 (1993–1994 Reg. Sess.) (Senate Bill No. 1198)); and (ii) the requirements were intended to provide an enhanced service to the public —*safer schools for the vast majority of students* (that is, those who are not expelled or referred to other school sites). In other words, the legislation was premised upon the idea that by removing potentially violent students from the general school population, the safety of those students who remain thereby is increased. (See, e.g., Stats.1993, ch. 1255, § 4, pp. 7285–7286 ["In order to ensure public safety on school campuses ... it is necessary that this act take effect immediately"]; Sen. Com. on Ed. (Apr. 28, 1993), Analysis of Assem. Bill No. 342, p. 2 [noting legislative purpose to enhance public safety]; see also Assem. Com. on Ed. (July 14, 1993), Analysis of Sen. Bill No. 1198, p. 1 [noting legislative purpose to remove those who possess firearms from the general school population by increasing the frequency of expulsion for such conduct].)

In challenging this conclusion, the Department relies upon *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 263 Cal.Rptr. 351 (*Department of Industrial Relations*). In that case, the state enacted enhanced statewide safety regulations that governed all public and private elevators, and thereafter the County of Los Angeles sought reimbursement for the costs of complying with the new regulations. The Court of Appeal found that the regulations constituted neither a new program nor a higher level of service concerning an existing program under either of the two alternative tests set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. The court concluded that the elevator regulations did not meet the first alternative test, because the regulations did not carry out a governmental function of providing services to the public; the court found instead that ***879** "[p]roviding elevators equipped with fire and earthquake ****600** safety features simply is not a 'government function of providing services to the public.' " (*Department of Industrial Relations, supra,* 214 Cal.App.3d at p. 1546, 263 Cal.Rptr. 351.) Moreover, the court found, the second ("uniqueness") test was not met—the regulation applied to all elevators, not only those owned or operated by local governments.

The Department asserts that *Department of Industrial Relations, supra,* 214 Cal.App.3d 1538, 263 Cal.Rptr. 351, is analogous, and argues that the "service" afforded by mandatory suspensions followed by a required expulsion recommendation, etc., is "not qualitatively different from the safety regulations at issue in [*Department of Industrial Relations*]. School districts carrying out such expulsions are not providing a service to the public...." We disagree. Providing public schooling clearly constitutes a governmental function, and enhancing the safety of those who attend such schools constitutes a service to the public. Moreover, here, unlike the situation in *Department of Industrial Relations,* the law implementing this state policy applies uniquely to local public schools. We conclude that *Department of Industrial Relations* does not conflict with the conclusion that the mandatory suspension and expulsion recommendation requirements, together with restrictions placed upon a district's resolution of such a case, constitute an increased or higher level of service to the public under the constitutional provision and the implementing statutes.

Of course, even if, as we have concluded above, a statute effectuates an increased or higher level of governmental service to the public concerning an existing program, this "does not necessarily lead to the conclusion that the program is a *state* mandate *****479** under California Constitution, article XIII B, section 6." (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 818, 38 Cal.Rptr.2d 304, italics added (*County of Los Angeles II*).) We turn to the question whether the hearing costs at issue, flowing from compulsory suspensions and mandatory expulsion recommendations, are mandated by the state.

2. *Are the hearing costs state mandated?*

As noted above, a compulsory suspension and a mandatory recommendation of expulsion under Education Code section 48915 in turn trigger a mandatory expulsion hearing. All parties agree that any such resulting expulsion hearing must comply with basic federal due process requirements, such as notice of charges, a right to

representation by counsel, an explanation of the evidence supporting the charges, and an opportunity to call and cross-examine witnesses and to present evidence. (See *ante,* fn. 5.) But as also noted above, article XIII B, section 6, and the implementing statutes ***880** (Gov.Code, § 17500 et seq.), by their terms, provide for reimbursement only of *state*-mandated costs, not *federally* mandated costs. The Commission and the Department assert that this circumstance raises the question: Do all or some of a district's costs in complying with the mandatory expulsion provision of Education Code section 48915 constitute a nonreimbursable *federal* mandate?

In the absence of the operation of Education Code section 48915's mandatory provision (specifically, compulsory immediate suspension and a mandatory expulsion recommendation), a school district would not automatically incur the due process hearing costs that are mandated by federal law pursuant to *Goss, supra,* 419 U.S. 565, 95 S.Ct. 729, 42 L.Ed.2d 725, and related cases, and codified in Education Code section 48918. Instead, a district would incur such hearing costs only if a school principal first were to exercise discretion to recommend expulsion. Accordingly, in its mandatory aspect, Education Code section 48915 appears to constitute a state mandate, in that it establishes conditions under which the state, rather than local officials, has made the decision requiring a school district to incur the costs of an expulsion hearing.

The Department and the Commission agree to a point, but argue that a district's costs incurred in complying with this state mandate are reimbursable only if, and to the extent that, hearing procedures set forth in Education Code section 48918 exceed the requirements of federal due process. In support, they rely upon ****601** Government Code section 17556, which—in setting forth circumstances in which the Commission shall *not* find costs to be mandated by the state—provides that "[t]he commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds that: ... (c) The statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or executive order mandates costs which exceed the mandate in that federal law or regulation." [13]

*****480** ***881** We agree with the District and the Court of Appeal below that, as applied to the present case, it cannot be said that Education Code section 48915's mandatory expulsion provision "*implemented a federal law or regulation.*" (Italics added.) Education Code section 48915, at the time relevant here, did not implement any federal law; as explained below, federal law did not *then* mandate an expulsion recommendation—or expulsion—for firearm possession. [14] Moreover, although the Department argues that in this context Government Code section 17556, subdivision (c)'s phrase "the statute" should be viewed as referring not to Education Code section 48915's mandatory expulsion recommendation requirement, but instead to the mandatory due process hearing under Education Code section 48918 that is triggered by such an expulsion recommendation, it still cannot be said that section 48918 itself required the District to incur any costs. As noted above, Education Code section 48918 sets out requirements for expulsion hearings that must be held when a district seeks to expel a student—but neither section 48918 nor federal law requires that any such expulsion recommendation be made in the first place, and hence section 48918 does not implement any federal mandate that school districts hold such hearings and incur such costs whenever a student is found in possession of a firearm. Accordingly, we conclude that the so-called exception to reimbursement described in Government Code section 17556, subdivision (c), is inapplicable in this context.

Because it is state law (Education Code section 48915's mandatory expulsion provision), and not federal due process law, that requires the District to take steps that in turn require it to incur hearing costs, it follows, contrary to the view of the Commission and the Department, that we cannot characterize *any* of the hearing costs incurred by the District, triggered by the mandatory provision of Education Code section 48915, as constituting a federal mandate (and hence being nonreimbursable). We conclude ****602** that under the statutes existing at the time of the test claim in this case (state legislation in effect through *****481** mid–1994), *all* such hearing costs—those designed to satisfy the minimum requirements of federal due process, and those that may exceed ***882** those requirements—are, with respect to the mandatory expulsion provision of section 48915, state mandated costs, fully reimbursable by the state. [15]

Against this conclusion, the Department, in its supplemental briefing, offers a wholly new theory, not advanced in any of the proceedings below, in support of its belated claim that *all* hearing costs triggered by Education Code section 48915's mandatory expulsion provision are in fact nonreimbursable *federal* mandates, and not, as we have concluded above, reimbursable state mandates. As we shall explain, we reject the Department's contention, as applied to the test case here at issue (involving state statutes in effect through mid–1994).

The Department cites 20 United States Code section 7151, part of the federal No Child Left Behind Act of 2001, which provides, as relevant here: "Each State receiving Federal funds under any subchapter of this chapter shall have in effect a State law requiring local educational agencies to expel from school for a period of not less than 1 year a student who is determined to have brought a firearm to a school, or to have possessed a firearm at a school, under the jurisdiction of local educational agencies in that State, except that such State law shall allow the chief administering officer of a local educational agency to modify such expulsion requirement for a student on a case-by-case basis if such modification is in writing." [16]

The Department further asserts that more than $2.8 billion in federal funds under the No Child Left Behind Act are included "for local use" in the 2003–04 state budget. (Cal. State Budget, 2003–04, Budget Highlights, p. 4.) The Department argues that in light of the requirements set forth in 20 United States Code section 7151, and the amount of federal program funds at issue under the No Child Left Behind Act, the financial consequences to the state and to the school districts of failing to comply with 20 United States Code section 7151 are such that as a practical matter, ***883** Education Code section 48915's mandatory expulsion provision in reality constitutes an implementation of federal law, and hence resulting costs are nonreimbursable except to the extent they exceed the requirements of federal law. (See Govt.Code, § 17556, subd. (c); see also *Kern High School Dist., supra,* 30 Cal.4th 727, 749–751, 134 Cal.Rptr.2d 237, 68 P.3d 1203; *City of Sacramento, supra,* 50 Cal.3d 51, 70–76, 266 Cal.Rptr. 139, 785 P.2d 522.) Moreover, the Department asserts, to the extent school districts are *****482** compelled by federal law, through Education Code section 48915's mandatory expulsion provision, to hold hearings pursuant to section 48918 in cases of firearm possession on school grounds, under 20 United States Code section 7164 (defining prohibited uses of program funds), *all* costs of such hearings properly may be paid out of federal program funds, and hence we should "view the ... provision of program funding as satisfying, in advance, any reimbursement requirement." (*Kern High School Dist., supra,* 30 Cal.4th 727, 747, 134 Cal.Rptr.2d 237, 68 P.3d 1203.)

****603** Although the Department asserts that this federal law and program existed at the time relevant in this matter (that is, through mid–1994), our review of the statutes and relevant history suggests otherwise. Title 20 of the United States Code, section 7151, and the remainder of the No Child Left Behind Act, became effective on January 8, 2002. The predecessor legislation cited by the Department—the Gun–Free Schools Act of 1994 (former 20 U.S.C. § 8921(a)), although containing a substantially identical mandatory expulsion provision (*id.,* § 8921(b)(1)) [17] —was not effective until July 1, 1995 (108 Stat. 3518, § 3). In turn, the predecessor legislation to *that* Act cited by the Department, the Elementary and Secondary Education Act of 1965 (former 20 U.S.C. § 6301 et seq.)—as it existed at the time relevant here (July 1, 1993, through June 30, 1994)—contained no such mandatory expulsion provision. Accordingly, it appears that despite the Department's late discovery of 20 United States Code section 7151, at the time relevant here (regarding legislation in effect through mid–1994), neither 20 United States Code section 7151, nor either of its predecessors, compelled states to enact a law such as Education Code section 48915's mandatory expulsion provision. Therefore, we reject the Department's assertion that, during the time period at issue in this case, Education Code section 48915's mandatory expulsion provision constituted an implementation of a federal, rather than a state, mandate.

Although we conclude that all hearing costs triggered by Education Code section 48915's mandatory expulsion provision constitute reimbursable state-mandated expenses under the statutes as they existed during the period ***884** covered by the District's present test claim, we do not foreclose the possibility that 20 United States Code section 7151 or its predecessor, 20 United States Code section 8921, may lead to a different conclusion when applied to versions of Education Code section 48915 effective in years 1995 and thereafter. Indeed, we note that at least one subsequent test claim that

has been filed with the Commission may raise the federal statutory issue advanced by the Department. [18]

B. *Costs associated with hearings triggered by discretionary expulsion recommendations*

[2] We next consider whether reimbursement is required for the costs associated *****483** with hearings triggered under discretionary expulsion provisions. Again, we address first the issue that we asked the parties to brief: Does the discretionary expulsion provision of Education Code section 48915 (former subd. (c), thereafter subd. (d), currently subd. (e)), which, as noted above, recognized that a principal possesses *discretion* to recommend that a student be expelled for specified conduct other than firearm possession (conduct such as damaging or stealing property, using or selling illicit drugs, possessing tobacco or drug paraphernalia, etc.), and further specified that the school district governing board "may" order a student expelled upon finding that the student, while at school or at a school activity off school grounds, engaged in such conduct, constitute a "new program or higher level of service" under article XIII B, section 6 of the state Constitution, and under Government Code section 17514?

We answer this question in the negative. The discretionary expulsion provision of Education Code section 48915 does not constitute a "new" program or higher level of service, because provisions recognizing discretion to suspend or expel were set forth in statutes predating 1975. (See Educ.Code, former ****604** § 10601, Stats.1959, ch. 2, § 3, p. 860 [providing that a student may be suspended for good cause]; *id.,* former § 10602 (Stats.1970, ch. 102, § 102, p. 159 (defining "good cause"); *id.,* former section 10601.6 (Stats.1972, ch. 164, § 2, p. 384 (further defining "good cause").))) [19] Accordingly, the discretionary expulsion provision of Education Code section 48915 is not a "new" program under article XIII B, section 6, and the implementing statutes, ***885** nor does it reflect a higher level of service related to an existing program. (*County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.)

The District maintains, nevertheless, that once it elects to pursue expulsion, it is obligated to abide by the procedural hearing requirements of Education Code section 48918 and accordingly is mandated by that section to incur costs associated with such compliance. The District asserts that in this respect, *section 48918* constitutes a "new program or higher level of service" related to an existing program under article XIII B, section 6 and under Government Code section 17514. We shall assume for analysis that this is so. [20]

The District recognizes, of course, that under Government Code, section 17556, subdivision (c), it is not entitled to reimbursement to the extent Education Code section 48918 merely implements federal due process law, but the District argues that it has a right to reimbursement for its costs of complying with section 48918 *to* *****484** *the extent* those costs are attributable to hearing procedures that *exceed* federal due process requirements. (See Govt.Code, § 17556, subd. (c).) The District asserts that its costs in complying with various notice, right of inspection, and recording requirements (see *ante,* fn. 11) fall into this category and are reimbursable.

The Department and the Commission argue in response that any right to reimbursement for hearing costs triggered by discretionary expulsions—even costs limited to those procedures that assertedly exceed federal due process hearing requirements—is foreclosed by virtue of the circumstance that when a school pursues a discretionary expulsion, it is not acting under compulsion of any law but instead is exercising a choice. In support, the Department and the Commission rely upon *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, and *City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 200 Cal.Rptr. 642 (*City of Merced*).

In *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, school districts asserted that costs incurred in complying with statutory notice and agenda requirements for committee meetings concerning various state and federally funded educational programs constituted a reimbursable state mandate, because once ***886** school districts *elected* to participate in the underlying state and federal programs, the districts had no option but to hold program-related committee meetings and abide by the challenged notice and agenda requirements. (*Id.,* at p. 742, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) We rejected the school districts' position, reasoning in part that because the districts' participation in the underlying programs was voluntary, the notice and agenda costs incurred as a result of that voluntary participation were not the product of legal compulsion and did not constitute a reimbursable state mandate on

that basis. **605 (*Id.,* at p. 745, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) [21]

In reaching that conclusion in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, we discussed *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642. In that case, the city wished either to purchase or to condemn, pursuant to its eminent domain authority, certain privately owned real property. The city elected to proceed by eminent domain, under which it was required by then recent legislation (Code Civ. Proc., § 1263.510) to compensate the property owner for loss of "business goodwill." The city so compensated the property owner and then sought reimbursement from the state, arguing that the new statutory requirement that it compensate for business goodwill amounted to a reimbursable state mandate. (*City of Merced, supra,* 153 Cal.App.3d at p. 780, 200 Cal.Rptr. 642.) The Court of Appeal concluded that the city's increased costs flowing from its election to condemn the property did not constitute a reimbursable state mandate. (*Id.,* at pp. 781–783, 200 Cal.Rptr. 642.) The court reasoned: "[W]hether a city or county decides to exercise eminent domain is, essentially, an option of the city or county, rather than a mandate of the state. *The fundamental concept is that the city or county is not required to exercise eminent domain. If, however, the power of eminent domain is* ***485 *exercised, then the city will be required to pay for loss of goodwill. Thus, payment for loss of goodwill is not a state-mandated cost.*" (*Id.,* at p. 783, 200 Cal.Rptr. 642, italics added.)

Summarizing this aspect of *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, we stated: "[T]he core point articulated by the court in *City of Merced* is that *activities undertaken at the option or discretion of a local government entity* (that is, actions undertaken without any legal compulsion or threat of penalty for nonparticipation) *do not trigger a state mandate and hence do not require reimbursement of funds—even if the local entity is obliged to incur costs as a result of its discretionary decision to participate in a particular program or practice.*" (*Kern High School Dist.,* at p. 742, 134 Cal.Rptr.2d 237, 68 P.3d 1203, italics added.)

The Department and the Commission argue that in the present case the District, like the claimants in *Kern High School Dist.,* errs by focusing upon *887 the final result—a school district's legal obligation to comply with statutory hearing procedures—rather than focusing upon whether the school district has been *compelled* to put itself in the position in which such a hearing (with resulting costs) is required.

The District and amici curiae on its behalf (consistently with the opinion of the Court of Appeal below) argue that the holding of *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, should not be extended to apply to situations beyond the context presented in that case and in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203. The District and amici curiae note that although any particular expulsion recommendation may be discretionary, as a practical matter it is inevitable that some school expulsions will occur in the administration of any public school program. [22]

**606 Upon reflection, we agree with the District and amici curiae that there is reason to question an extension of the holding of *City of Merced* so as to preclude reimbursement ***486 under *888 article XIII B, section 6 of the state Constitution and Government Code section 17514, whenever an entity makes an initial discretionary decision that in turn triggers mandated costs. Indeed, it would appear that under a strict application of the language in *City of Merced,* public entities would be denied reimbursement for state-mandated costs in apparent contravention of the intent underlying article XIII B, section 6 of the state Constitution and Government Code section 17514 [23] and contrary to past decisions in which it has been established that reimbursement was in fact proper. For example, as explained above, in *Carmel Valley, supra,* 190 Cal.App.3d 521, 234 Cal.Rptr. 795, an executive order requiring that county firefighters be provided with protective clothing and safety equipment was found to create a reimbursable state mandate for the added costs of such clothing and equipment. (*Id.,* at pp. 537–538, 234 Cal.Rptr. 795.) The court in *Carmel Valley* apparently did not contemplate that reimbursement would be foreclosed in that setting merely because a local agency possessed discretion concerning how many firefighters it would employ—and hence, in that sense, could control or perhaps even avoid the extra costs to which it would be subjected. Yet, under a strict application of the rule gleaned from *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, such costs would not be reimbursable

for the simple reason that the local agency's decision to employ firefighters involves an exercise of discretion concerning, for example, how many firefighters are needed to be employed, etc. We find it doubtful that the voters who enacted article XIII B, section 6, or the Legislature that adopted Government Code section 17514, intended that result, and hence we are reluctant to endorse, in this case, an application of the rule of *City of Merced* that might lead to such a result.

In any event, we have determined that we need not address in this case the problems posed by such an application of the rule articulated in *City of Merced,* because this aspect of the present case can be resolved on an alternative basis. As we shall explain, we conclude, regarding the reimbursement claim that we face presently, that *all* hearing procedures set forth in Education Code section 48918 properly should be considered to have been adopted to implement a federal due process mandate, and hence that all such hearing costs are nonreimbursable under article XIII B, section 6, and Government Code section 17557, subdivision (c).

In this regard, we find the decision in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, to be instructive. That case concerned Penal Code section 987.9, which requires counties to provide indigent criminal defendants with defense funds for ancillary investigation services related to capital trials and certain other trials, and further provides related procedural protections—namely, the confidentiality of a request for funds, the right to have the request ruled upon by a judge other than the trial judge, and the right to an in camera hearing on the request. The county in that case asserted that funds expended under the statute constituted reimbursable ****607** state mandates. The Court of Appeal disagreed, finding instead that the Penal Code section merely implements the requirements of federal constitutional law, and that "even in the ***889** absence of *****487** [Penal Code] section 987.9, ... counties would be responsible for providing ancillary services under the constitutional guarantees of due process ... and under the Sixth Amendment...." (32 Cal.App.4th at p. 815, 38 Cal.Rptr.2d 304.) Moreover, the Court of Appeal concluded, the procedural protections that the Legislature had built into the statute—requirements of confidentiality of a request for funds, the right to have the request ruled upon by a judge other than the trial judge, and the right to an in camera hearing on the request—were merely incidental to the federal rights codified by the statute, and their "financial impact" was de minimis. (*Id.,* at p. 817, fn. 7, 38 Cal.Rptr.2d 304.) Accordingly, the Court of Appeal concluded, the Penal Code section, in its entirety—that is, *even those incidental aspects of the statute that articulated specific procedures, not expressly set forth in federal law, for the filing and resolution of requests for funds*—constituted an implementation of federal law, and hence those costs were nonreimbursable under article XIII B, section 6.

We conclude that the same reasoning applies in the present setting, concerning the District's request for reimbursement for procedural hearing costs triggered by its discretionary decision to seek expulsion. As in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, the initial discretionary decision (in the former case, to file charges and prosecute a crime; in the present case, to seek expulsion) in turn triggers a federal constitutional mandate (in the former case, to provide ancillary defense services; in the present case, to provide an expulsion hearing). In both circumstances, the Legislature, in adopting specific statutory procedures to comply with the general federal mandate, reasonably articulated various incidental procedural protections. These protections are designed to make the underlying federal right enforceable and to set forth procedural details that were not expressly articulated in the case law establishing the respective rights; viewed singly or cumulatively, they did not significantly increase the cost of compliance with the federal mandate. The Court of Appeal in *County of Los Angeles II* concluded that, for purposes of ruling upon a claim for reimbursement, such incidental procedural requirements, producing at most de minimis added cost, should be viewed as part and parcel of the underlying federal mandate, and hence nonreimbursable under Government Code, section 17556, subdivision (c). We reach the same conclusion here.

Indeed, to proceed otherwise in the context of a reimbursement claim would produce impractical and detrimental consequences. The present case demonstrates the point. The record reveals that in the extended proceedings before the Commission, the parties spent numerous hours producing voluminous pages of analysis directed toward determining whether various provisions of Education Code section 48918 exceeded federal due process requirements. That task below was complicated by the circumstance that this area of federal due process law is not well developed. The Commission, which is not

a judicial body, did as best it could and concluded that in certain ***890** respects the various provisions (as observed *ante,* footnote 11, predominantly concerning notice, right of inspection, and recording requirements) "exceeded" the requirements of federal due process.

Even for an appellate court, it would be difficult and problematic in this setting to categorize the various notice, right of inspection, and recording requirements here at issue as falling either within or without the general federal due process mandate. The difficulty results not only from the circumstance that, as noted, the case law *****488** in the area of due process procedures concerning expulsion matters is relatively undeveloped, but also from the circumstance that when such an issue is raised in an action for reimbursement, as opposed to its being raised in litigation challenging an actual expulsion on the ground of allegedly inadequate hearing procedures, the issue inevitably is presented in the abstract, without any factual context that might help frame the legal issue. In such circumstances, courts are—and should be— ****608** wary of venturing pronouncements (especially concerning matters of constitutional law).

In light of these considerations, we agree with the conclusion reached by the Court of Appeal in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304: for purposes of ruling upon a request for reimbursement, challenged state rules or procedures that are intended to implement an applicable federal law—and whose costs are, in context, de minimis—should be treated as part and parcel of the underlying federal mandate.

Applying that approach to the case now before us, we conclude there can be no doubt that the assertedly "excessive due process" aspects of Education Code section 48918 for which the District seeks reimbursement in connection with hearings triggered by discretionary expulsions (see *ante,* footnote 11—primarily, as noted, various notice, right of inspection, and recording rules) fall within the category of matters that are merely incidental to the underlying federal mandate, and that produce at most a de minimis cost. Accordingly, for purposes of the District's reimbursement claim, all hearing costs incurred under Education Code section 48918, triggered by the District's exercise of discretion to seek expulsion, should be treated as having been incurred pursuant to a mandate of federal law, and hence all such costs are nonreimbursable under Government Code section 17556, subdivision (c). [24]

***891 III**

The judgment of the Court of Appeal is affirmed insofar as it provides for full reimbursement of all costs related to hearings triggered by the mandatory expulsion provision of Education Code section 48915. The judgment of the Court of Appeal is reversed insofar as it provides for reimbursement of any costs related to hearings triggered by the discretionary provision of section 48915. All parties shall bear their own costs on appeal.

WE CONCUR: KENNARD, BAXTER, WERDEGAR, CHIN, BROWN, and MORENO, JJ.

All Citations

33 Cal.4th 859, 94 P.3d 589, 16 Cal.Rptr.3d 466, 190 Ed. Law Rep. 636, 04 Cal. Daily Op. Serv. 6945, 2004 Daily Journal D.A.R. 9404

Footnotes

1 The provision continues: "except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." (Cal. Const., art. XIII B, § 6.)

2 For purposes of our present inquiry, section 48918, at the time relevant here (mid–1993 through mid–1994) read essentially as it had for the prior decade, and as it has in the ensuing decade. That provision first was enacted in 1975 (see Stats.1975, ch. 1253, § 4, pp. 3277–3278) as Education Code, former section 10608. (This enactment apparently was a response to the United States Supreme Court's decision in *Goss v. Lopez* (1975) 419 U.S. 565, 581, 95 S.Ct. 729, 42 L.Ed.2d 725 (*Goss*) [recognizing due process requirements applicable to public school students who are suspended for more than 10 days].) The statute was renumbered as Education Code, former section 48914 in 1976 (Stats.1976, ch. 1010, § 2, pp. 3589–3590) and was substantially augmented in 1977 (Stats.1977, ch. 965, § 24, pp. 2924–2926). After

relatively minor amendments in 1978 and 1982, the section in 1983 was substantially restated, further augmented, and renumbered as Education Code section 48918 (Stats.1983, ch. 498, § 91, p. 2118). Amendments adopted in 1984 and 1988 made relatively minor changes, and further similar modifications were made in 1990, reflecting the version of the statute here at issue. Subsequent amendments in 1995, 1996, 1998, and 1999 made further changes that are irrelevant to the issue presented in the case now before us.

3 The provision reads: "The pupil shall be entitled to a hearing to determine whether the pupil should be expelled. An expulsion hearing shall be held within 30 schooldays after the date the principal or the superintendent of schools determines that the pupil has committed any of the acts enumerated in Section 48900...." (Ed.Code, § 48918, subd. (a). (Subdivision (b) of § 48900 presently includes—as it did at the time relevant here—the offense of possession of a firearm.)

4 Of course, if a student does not invoke his or her entitlement to such a hearing, and instead waives the right to such a hearing, the hearing need not be held.

5 See *Goss, supra,* 419 U.S. 565, 581, 95 S.Ct. 729, 42 L.Ed.2d 725; *Gonzales v. McEuen* (C.D.Cal.1977) 435 F.Supp. 460, 466–467 (concluding that former Education Code section 10608 [current § 48918] met federal due process requirements pertaining to expulsions from public schools); 7 Witkin, Summary of California Law (9th ed.1988), Constitutional Law, § 549, p. 754 (noting that Education Code section 48918 and related legislation were enacted in response to the decision in *Goss*).

6 An earlier and similar, albeit broader, version of the provision—extending not only to possession of firearms but also to possession of explosives and certain knives—existed briefly and was effective for approximately two and one-half months in late 1993. That initial statute, former section 48915, subdivision (b) (as amended Stats.1993, ch. 1255, § 2, pp. 7284–7285), which was effective only from October 11, 1993 through December 31, 1993, provided: "The principal or the superintendent of schools shall immediately suspend pursuant to Section 48911, and shall recommend to the governing board the expulsion of, any pupil found to be in possession of a firearm, knife of no reasonable use to the pupil, or explosive at school or at a school activity off school grounds. The governing board shall expel that pupil or, as an alternative, refer that pupil to an alternative education program, whenever the principal or the superintendent of schools and the governing board confirm that: [¶] (1) The pupil was in knowing possession of the firearm, knife, or explosive. [¶] (2) Possession of the firearm, knife of no reasonable use to the pupil, or explosive was verified by an employee of the school district. [¶] (3) There was no reasonable cause for the pupil to be in possession of the firearm, knife, or explosive."

As subsequently amended by Statutes 1993, chapter 1256, section 2, pages 7286–7287, effective January 1, 1994, Education Code section 48915, former subdivision (b), read: "The principal or the superintendent of schools shall immediately suspend, pursuant to Section 48911, any pupil found to be in possession of a firearm at school or at a school activity off school grounds and shall recommend expulsion of that pupil to the governing board. The governing board shall expel that pupil or refer that pupil to a program of study that is appropriately prepared to accommodate students who exhibit discipline problems and is not provided at a comprehensive middle, junior, or senior high school or housed at the schoolsite attended by the pupil at the time the expulsion was recommended to the school board, whenever the principal or superintendent of schools and the governing board confirm the following: [¶] (1) The pupil was in knowing possession of the firearm. [¶] (2) An employee of the school district verifies the pupil's possession of the firearm."

7 The current subdivisions of Education Code section 48915 set forth a list of mandatory expulsion conduct broader than that set forth in former subdivision (b), and require a school board both to *expel and refer* to other institutions all students found to have committed such conduct. The present subdivisions read: "(c) The principal or superintendent of schools shall immediately suspend, pursuant to Section 48911, and shall recommend expulsion of a pupil that he or she determines has committed any of the following acts at school or at a school activity off school grounds: [¶] (1) Possessing, selling, or otherwise furnishing a firearm. This subdivision does not apply to an act of possessing a firearm if the pupil had obtained prior written permission to possess the firearm from a certificated school employee, which is concurred in by the principal or the designee of the principal. This subdivision applies to an act of possessing a firearm only if the possession is verified by an employee of a school district. [¶] (2) Brandishing a knife at another person. [¶] (3) Unlawfully selling a controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the Health and Safety Code. [¶] (4) Committing or attempting to commit a sexual assault as defined in subdivision (n) of Section 48900 or committing a sexual battery as defined in subdivision (n) of Section 48900.[¶] (5) Possession of an explosive. [¶] (d) The governing board shall order a pupil expelled upon finding that the pupil committed an act listed in subdivision (c), and shall refer that pupil to a program of study that meets all of the following conditions: [¶] (1) Is appropriately prepared to accommodate pupils who exhibit discipline problems. [¶] (2) Is not provided at a comprehensive middle, junior, or

senior high school, or at any elementary school. [¶] (3) Is not housed at the schoolsite attended by the pupil at the time of suspension." (Stats.2001, ch. 116, § 1.)

8 As the Department of Finance observed in an August 22, 1994, communication to the Commission in this matter, "nothing in [Education Code section 48915] ... requires a district governing board or a county board of education to expel a pupil," and even "unauthorized and knowing possession of a firearm, does not result in mandated expulsion. Section 48915 subdivision (b) provides for the choice of the governing board to either expel the pupil in possession of a firearm, or refer the pupil to an alternative program of study...."

9 Education Code, section 48915, former subdivision (c) (as amended Stats.1992, ch. 909, § 3, p. 4226; amended and redesignated as former subd. (d) by Stats.1993, ch. 1255, § 2, pp. 7284–7285; further amended Stats.1993, ch. 1256, § 2, p. 7287, and Stats.1994, ch. 1198, § 7, p. 7271) provided, at the time relevant here: "Upon recommendation by the principal, superintendent of schools, or by a hearing officer or administrative panel appointed pursuant to subdivision (d) of Section 48918, the governing board *may* order a pupil expelled upon finding that the pupil violated subdivision (f), (g), (h), (i), (j), (k), or (*l*) of Section 48900, or Section 48900.2 or 48900.3, and either of the following: [¶] (1) That other means of correction are not feasible or have repeatedly failed to bring about proper conduct. [¶] (2) That due to the nature of the violation, the presence of the pupil causes a continuing danger to the physical safety of the pupil or others." (Italics added.)

At the time relevant here, subdivisions (f) through (*l*) of section 48900 (as amended Stats.1992, ch. 909, § 1, pp. 4224–4225; Stats.1994, ch. 1198, § 5, pp. 7269–5270) provided: "A pupil shall *not* be suspended from school or recommended for expulsion *unless* the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has: [¶] ... [¶] (f) Caused or attempted to cause damage to school property or private property. [¶] (g) Stolen or attempted to steal school property or private property. [¶] (h) Possessed or used tobacco, or any products containing tobacco or nicotine products.... However, this section does not prohibit use or possession by a pupil of his or her own prescription products. [¶] (i) Committed an obscene act or engaged in habitual profanity or vulgarity. [¶] (j) Had unlawful possession of, or unlawfully offered, arranged, or negotiated to sell any drug paraphernalia, as defined in Section 11014.5 of the Health and Safety Code. [¶] (k) Disrupted school activities or otherwise willfully defied the valid authority of supervisors, teachers, administrators, school officials, or other school personnel engaged in the performance of their duties. [¶] (*l*) Knowingly received stolen school property or private property." (Italics added.)

At the time relevant here, section 48900.2 (Stats.1992, ch. 909, § 2, p. 4225) provided: "In addition to the reasons specified in Section 48900, a pupil may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has committed sexual harassment as defined in Section 212.5.[¶] For the purposes of this chapter, the conduct described in Section 212.5 must be considered by a reasonable person of the same gender as the victim to be sufficiently severe or pervasive to have a negative impact upon the individual's academic performance or to create an intimidating, hostile, or offensive educational environment. This section shall not apply to pupils enrolled in kindergarten and grades 1 to 3, inclusive."

Section 48900.3 (Stats.1994, ch. 1198, § 6, p. 7270), at the time relevant here, provided: "In addition to the reasons specified in Sections 48900 and 48900.2, a pupil in any of grades 4 to 12, inclusive, may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has caused, attempted to cause, threatened to cause, or participated in an act of, hate violence, as defined in subdivision (e) of [former] Section 33032.5 [current section 233]."

In addition, section 48900.4 (Stats.1994, ch. 1017, § 1, p. 6196) provided, at the time relevant here: "In addition to the grounds specified in Sections 48900 and 48900.2, a pupil enrolled in any of grades 4 to 12, inclusive, may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has intentionally engaged in harassment, threats, or intimidation, directed against a pupil or group of pupils, that is sufficiently severe or pervasive to have the actual and reasonably expected effect of materially disrupting classwork, creating substantial disorder, and invading the rights of that pupil or group of pupils by creating an intimidating or hostile educational environment."

(All of these current provisions—sections 48915, subdivision (e), 48900, 48900.2, 48900.3, and 48900.4—read today substantially the same as they did at the time relevant in the present case.)

10 As observed by amicus curiae California School Boards Association, a "test claim is like a class action—the Commission's decision applies to all school districts in the state. If the district is successful, the Commission goes to the Legislature to fund the statewide costs of the mandate for that year and annually thereafter as long as the statute is in effect."

11 The Commission concluded that the costs incurred in providing the following state-mandated procedures under Education Code section 48918 exceeded federal due process requirements, and were reimbursable: (i) adoption of rules and regulations pertaining to pupil expulsions (§ 48918, first par. & *passim*); (ii) inclusion in the notice of hearing of (a) a

copy of the disciplinary rules of the District, (b) a notice of the parents' obligation to notify a new school district, upon enrollment, of the pupil's expulsion, and (c) a notice of the opportunity to inspect and obtain copies of all documents to be used at the hearing (§ 48918, subd. (b)); (iii) allowing, upon request, the pupil or parent to inspect and obtain copies of the documents to be used at the hearing (§ 48918, subd. (b)); (iv) sending of written notice concerning (a) any decision to expel or suspend the enforcement of an expulsion order during a period of probation, (b) the right to appeal the expulsion to the county board of education, and (c) the obligation of the parent to notify a new school district, upon enrollment, of the pupil's expulsion (§ 48918, former subd. (i), currently subd. (j); (v) maintenance of a record of each expulsion, including the cause thereof (§ 48918, former subd. (j), currently subd. (k); and (vi) the recording of expulsion orders and the causes thereof in the pupil's mandatory interim record (and, upon request, the forwarding of this record to any school in which the pupil subsequently enrolls) (§ 48918, former subd. (j), currently subd. (k)).

12 Indeed, as the court in *City of Richmond, supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754, observed: "Increasing the cost of providing services cannot be equated with requiring an increased level of service under [article XIII B,] section 6.... A higher cost to the local government for compensating its employees is not the same as a higher cost of providing [an increased level of] services to the public." (*Id.,* at p. 1196, 75 Cal.Rptr.2d 754; accord, *City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484, 235 Cal.Rptr. 101 [temporary increase in PERS benefit to retired employees, resulting in higher contribution rate by local government, does not constitute a higher level of service to the public].)

13 Government Code section 17556 reads in full: "The commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds that: [¶] (a) The claim is submitted by a local agency or school district which requested legislative authority for that local agency or school district to implement the program specified in the statute, and that statute imposes costs upon that local agency or school district requesting the legislative authority. A resolution from the governing body or a letter from a delegated representative of the governing body of a local agency or school district which requests authorization for that local agency or school district to implement a given program shall constitute a request within the meaning of this paragraph. [¶] (b) The statute or executive order affirmed for the state that which had been declared existing law or regulation by action of the courts. [¶] (c) The statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or executive order mandates costs which exceed the mandate in that federal law or regulation. [¶] (d) The local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. [¶] (e) The statute or executive order provides for offsetting savings to local agencies or school districts which result in no net costs to the local agencies or school districts, or includes additional revenue that was specifically intended to fund the costs of the state mandate in an amount sufficient to fund the cost of the state mandate. [¶] (f) The statute or executive order imposed duties which were expressly included in a ballot measure approved by the voters in a statewide election. [¶] (g) The statute created a new crime or infraction, eliminated a crime or infraction, or changed the penalty for a crime or infraction, but only for that portion of the statute relating directly to the enforcement of the crime or infraction."

14 Subsequent amendments to federal law may alter this conclusion with regard to future test claims concerning Education Code section 48915's mandatory expulsion provision—see *post,* 16 Cal.Rptr.3d pages 481–482, 94 P.3d pages 602–603.

15 In Exhibit No. 1 to its claim, the District presented the declaration of a San Diego Unified School District official, estimating that in order to process "350 proposed expulsions" during the period spanning July 1, 1993, to June 30, 1994, the District would incur approximately $94,200 "in staffing and other costs"—yielding an average estimated cost of approximately $270 per hearing during the relevant period. It is unclear from the record how many of these 350 hearings would be triggered by Education Code section 48915's mandatory expulsion provision (and constitute state-mandated costs subject to reimbursement under article XIII B, section 6), and how many of these 350 hearings would be triggered by Education Code section 48915's discretionary provision (and, as explained *post,* in part II.B, constitute a nonreimbursable *federal* mandate).

We note that in the proceedings below, the Commission did not confine reimbursement only to those matters as to which the district on its own initiative would not have sought expulsion in the absence of the statutory requirement that it seek expulsion—and the Department has not raised that point in the trial court or on appeal.

16 "Firearm," as defined in 18 United States Code section 921, includes guns and explosives.

17 The prior law stated: "Except as provided in paragraph (3), each State receiving Federal funds under this chapter shall have in effect a State law requiring local educational agencies to expel from school for a period of not less than one year a student who is determined to have brought a weapon to a school under the jurisdiction of local educational agencies in that State, except that such State law shall allow the chief administering officer of such local educational agency to

modify such expulsion requirement for a student on a case-by-case basis." (Pub.L. No. 103–382, § 14601(b)(1) (Oct. 20, 1994) 108 Stat. 3518.)

18 See Pupil Expulsions II (4th Amendment), CSM No. 01–TC–18 (filed June 3, 2002). This claim, filed by the San Juan Unified School District, asserts reimbursable state mandates with respect to, among numerous other statutes, Education Code section 48915, as amended effective in 2002.

19 As the Commission observed in its Corrected Statement of Decision in this matter: "The authorization for governing boards to expel pupils from school for inappropriate behaviors has been in existence since before 1975. The behaviors defined as inappropriate under current law, subdivisions (a) though (*l*) of section 48900, 48900.2, and 48900.3, meet prior laws' definitions of 'good cause' and 'misconduct' as reasons for expulsion." (Italics deleted.)

20 The requirements of Education Code section 48918 would appear to be "new" for purposes of the reimbursement provisions, in that they did not exist prior to 1975 and were enacted in that year and subsequently. (See *ante,* fn. 2.) The requirements also would appear to meet both alternative tests set forth in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202—that is, by implementing procedures that direct and guide the process of expulsion from public school, the statute appears to carry out a governmental function of providing services to public school students who face expulsion; or, it would seem, section 48918 constitutes a law that, to implement state policy, imposes unique requirements on local governments.

21 We also proceeded to hold that in any event, because the school districts were free to use program funds to pay for the challenged increased costs, the districts had, in practical effect, already been given funds by the Legislature to cover the challenged costs. (*Kern High School Dist., supra,* 30 Cal.4th at pp. 748–754, 134 Cal.Rptr.2d 237, 68 P.3d 1203.)

22 Indeed, the Court of Appeal below suggested that the present case is distinguishable from *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, in light of article I, section 28, subdivision (c), of the state Constitution. That constitutional subdivision, part of Proposition 8 (known as the Victims' Bill of Rights initiative, adopted by the voters at the Primary Election in June 1982), states: "All students and staff of public primary, elementary, junior high and senior high schools have the inalienable right to attend campuses which are safe, secure and peaceful." The Court of Appeal below concluded: "In light of a school district's constitutional obligation to provide a safe educational environment ..., the incurring of [hearing] costs [under Education Code section 48918] cannot properly be viewed as a nonreimbursable 'downstream' consequence of a decision to [seek to] expel a student under [Education Code section 48915's discretionary provision] for damaging or stealing school or private property, using or selling illicit drugs, receiving stolen property, engaging in sexual harassment or hate violence, or committing other specified acts of misconduct ... that warrant such expulsion."

Building upon this theme, amicus curiae on behalf of the District, California School Boards Association, argues that based upon article I, section 28, subdivision (c), of the state Constitution, together with Education Code section 48200 et seq. and article IX, section 5 of the state Constitution (establishing and implementing a right of public education), *no* expulsion recommendation is "truly discretionary." Indeed, amicus curiae argues, school districts may not, "either as a matter of law or policy, realistically choose to [forgo] expelling [a] student [who commits one of the acts, other than firearm possession, referenced in Education Code section 48915's discretionary provision], because doing so would fail to meet that school district's legal obligations to provide a safe, secure and peaceful learning environment for the other students."

23 As we observed in *Kern High School Dist., supra,* 30 Cal.4th 727, 751–752, 134 Cal.Rptr.2d 237, 68 P.3d 1203, "article XIII B, section 6's 'purpose is to preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are "ill equipped" to assume increased financial responsibilities.' "

24 We do not foreclose the possibility that a local government might, under appropriate facts, demonstrate that a state law, though codifying federal requirements in part, also imposes more than "incidental" or "de minimis" expenses in excess of those demanded by federal law, and thus gives rise to a reimbursable state mandate to that extent.

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61 Cal.4th 339
Supreme Court of California

STATE DEPARTMENT OF STATE HOSPITALS et al., Petitioners,
v.
The SUPERIOR COURT of Los Angeles County, Respondent;
Elaina Novoa, Individually and as Personal Representative, etc., Real Party in Interest.

No. S215132.
|
June 1, 2015.

Synopsis
Background: Sister of rape and murder victim killed by parolee four days after release from prison brought action against State Department of Mental Health and its acting directors, alleging that they breached mandatory duties under the Sexually Violent Predators Act (SVPA) and committed negligence, and seeking a writ of mandamus to compel them to perform their duties. The Superior Court, Los Angeles County, No. BC487936, John L. Segal, J., overruled defendants' demurrers, and defendants petitioned for writ of mandate. The Court of Appeal granted petition in part and denied it in part.

Holdings: The Supreme Court, Corrigan, J., held that:

[1] SVPA requirement that the Department designate two psychiatrists or psychologists to conduct evaluations was a non-discretionary mandatory duty;

[2] Department did not have any mandatory duty to conduct an in-person evaluation;

[3] the harm to the public caused by parolee's release was the kind of risk the mandatory duty to designate two evaluators was designed to forestall; but

[4] Department's breach of its duty to designate a second evaluator was not a proximate cause of rape and murder committed by parolee.

Affirmed.

Opinion, 163 Cal.Rptr.3d 770, superseded.

Werdegar, J., filed concurring opinion, in which Liu and Kruger, JJ., joined.

Attorneys and Law Firms

*****312** Kamala D. Harris, Attorney General, Kathleen A. Kenealy, Chief Assistant Attorney General, Kristin G. Hogue, Assistant Attorney General, Richard F. Wolfe, Joel A. Davis, Pamela J. Holmes and Paul F. Arentz, Deputy Attorneys General, for Petitioners.

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Opinion

CORRIGAN, J.

***343** ****1015** In 2007, Gilton Pitre was paroled from state prison. Before his release, the State Department of Mental Health (DMH) assessed ***344** whether he should be civilly committed under the Sexually Violent Predators Act (SVPA). (Welf. & Inst.Code, § 6600 et seq.) Ultimately, the Director of Mental Health did not request a petition for commitment and Pitre left prison. Four days later, he raped and murdered plaintiff Elaina Novoa's 15–year–old sister, Alyssa Gomez.

Plaintiff sued DMH and two of its acting directors, claiming the death was caused by defendants' failure to discharge mandatory duties imposed by the SVPA. The superior court overruled a demurrer. Defendants petitioned for a writ of mandate. The Court of Appeal issued an order to show cause, and concluded that while the SVPA imposed a mandatory duty on defendants, the alleged ****1016** breach was not the proximate cause of Gomez's death. We affirm.

I. BACKGROUND

A. *The SVPA*

[1] The SVPA authorizes the involuntary civil commitment of a person who has *****313** completed a prison term but is found to be a sexually violent predator (SVP). (*Reilly v. Superior Court* (2013) 57 Cal.4th 641, 646, 160 Cal.Rptr.3d 410, 304 P.3d 1071 (*Reilly*); *People v. McKee* (2010) 47 Cal.4th 1172, 1185, 104 Cal.Rptr.3d 427, 223 P.3d 566 (*McKee*).) The SVPA's purposes are " 'to protect the public from dangerous felony offenders with mental disorders and to provide mental health treatment for their disorders.' " (*McKee,* at p. 1203, 104 Cal.Rptr.3d 427, 223 P.3d 566.) The Welfare and Institutions Code sets forth the relevant procedures. (Welf. & Inst.Code, § 6600 et seq.) [1]

Section 6600, subdivision (a)(1) defines an SVP as "a person who has been convicted of a sexually violent offense against one or more victims and who has a diagnosed mental disorder that makes the person a danger to the health and safety of others in that it is likely that he or she will engage in sexually violent criminal behavior." [2] "Whenever the Director of Corrections determines that an individual who is in custody ... may be [an SVP], the director shall ... refer the person for evaluation...." (Former § 6601, subd. (a)(1).) [3] The statutory scheme establishes a multiple-level review for inmates who may be SVPs. An inmate who is referred by the Director of Corrections is then "screened by the Department of Corrections ... based on whether the ***345** person has committed a sexually violent predatory offense and on a review of the person's social, criminal, and institutional history. This screening shall be conducted in accordance with a structured screening instrument developed and updated by [DMH] in consultation with the Department of Corrections. If as a result of this screening it is determined that the person is likely to be [an SVP], the Department of Corrections shall refer the person to [DMH] for a full evaluation of whether the person [is an SVP]." [4] (Former § 6601, subd. (b).)

If an inmate is referred for full evaluation, "[DMH] shall evaluate the person in accordance with a standardized assessment protocol, developed and updated by [DMH], to determine whether the person is [an SVP]...." (§ 6601, subd. (c).) The scope of the evaluation is codified in some detail. "The standardized assessment protocol shall require assessment of diagnosable mental disorders, as well as various factors known to be associated with the risk of reoffense among sex offenders. Risk factors to be considered shall include criminal and psychosexual history, type, degree, and duration of sexual deviance, and severity of mental disorder." (*Ibid.*) Moreover, "the person shall be evaluated by two practicing psychiatrists or psychologists, or one practicing psychiatrist and one practicing psychologist, designated by the Director of Mental Health. If both evaluators concur that the person has a diagnosed mental disorder so that he or she is likely to engage in acts of sexual violence without appropriate treatment *****314** and custody, the Director of Mental Health shall forward a request for a petition for commitment" to the designated counsel of the county in which the inmate was convicted. [5] (Former § 6601, subd. (d).)

****1017** If the evaluators disagree about whether the person meets the criteria, "the Director of Mental Health shall arrange for further examination of the person by two independent professionals...." (§ 6601, subd. (e).) "[A] petition to request commitment ... shall only be filed if both independent professionals ... concur that the person meets the criteria for commitment...." (§ 6601, subd. (f).) When that requirement is met, "the Director of Mental Health shall forward a request for a petition to be filed for commitment" to the designated counsel of the county. (Former § 6601, subd. (h).) If counsel concurs with the recommendation, "a petition for commitment shall be filed in ... superior court...." (§ 6601, subd. (i).) The court thereafter "shall review the petition and shall determine whether there is probable cause to believe that the individual ... is likely to engage in ***346** sexually violent predatory criminal behavior upon his or her release." (§ 6602, subd. (a).) The court must order a trial if there is probable cause, and it must dismiss the petition if there is not. (*Ibid.*)

The inmate is "entitled to a trial by jury, to the assistance of counsel, to the right to retain experts or professional persons to perform an examination on his or her behalf, and to have access to all relevant medical and psychological records and reports." (§ 6603, subd. (a).) There can be no civil commitment under the SVPA unless the trier of fact determines beyond a reasonable doubt that the person is an SVP. (§ 6604.) A person found to be an SVP "shall be committed for an indeterminate

term to the custody of [DMH] for appropriate treatment and confinement in a secure facility....” (*Ibid.*) Annual examinations are conducted to assess whether the person is still likely to engage in sexually violent criminal behavior if discharged. (§ 6605, subd. (a).)

B. *Factual and Procedural History*

[2] On demurrer review, we accept the truth of material facts properly pleaded, but not contentions, deductions, or conclusions of fact or law. We may also consider matters subject to judicial notice. (*Evans v. City of Berkeley* (2006) 38 Cal.4th 1, 6, 40 Cal.Rptr.3d 205, 129 P.3d 394.) In 1996, Pitre raped his female roommate. He was convicted and sentenced to a determinate term in state prison. In 2007, he was scheduled for parole. DOC determined that Pitre was likely to be an SVP, and referred him to DMH for evaluation. DMH, however, did not conduct a full evaluation by two psychologists or psychiatrists, or one of each, as required by statute. Instead, a single evaluator reviewed records received from DOC, and on that limited basis determined that Pitre was suitable for release. The complaint describes this limited evaluation by a single evaluator as a “Level II” screening under DMH regulations in effect at the time. After reviewing a person's records, a “Level II” evaluator could either close a case or refer it for a full “Level III” assessment by two evaluators. Because the Director of Mental Health did not forward a request for a petition for commitment, Pitre was paroled. Four days later, he raped and murdered Gomez. [6]

*****315** Plaintiff sued, asserting claims for breach of mandatory duty (Gov.Code, § 815.6), negligence, and negligence per se. She also sought a writ of mandate requiring defendants to comply with SVPA evaluation procedures (Code Civ. Proc., § 1085). She claimed that if defendants had conducted the full evaluation required by statute, “any two competent, ethical evaluators would have determined [Pitre] met the criteria for civil commitment,” based ***347** on “the circumstances of his 1996 offense, as detailed in the records,” which “clearly and unequivocally demonstrate the sadistic nature of his crime.” She alleged that the single evaluator who reviewed Pitre's case stated that if he had had access to all the records and considered the sadistic nature of Pitre's 1996 crime, he would have concluded that Pitre was an SVP. Plaintiff further alleged that most sexual predators who reoffend exhibit “tell-tale signs,” and that a full evaluation would likely have detected such signs in Pitre.

****1018** Had there been two positive findings on Pitre's SVP status, DMH was obligated to submit a request for a civil commitment to designated counsel. Plaintiff claimed that a petition has been filed in every case referred by DMH following two positive evaluations. Had a petition been filed, Pitre's case would have gone to trial, the complaint alleged, and “he would have been civilly committed.”

Defendants demurred, arguing that plaintiff failed to state a cause of action and that they were immune from liability. [7] The superior court overruled the demurrer. On writ review, the Court of Appeal concluded that defendants were not immune from suit. It held that the SVPA imposes a mandatory duty to use two evaluators. However, the court also ruled that plaintiff could not, as a matter of law, establish the breach of that duty as the proximate cause of Gomez's death. The court further held that plaintiff failed to show she could amend her complaint to cure the defect as to proximate cause. Accordingly, it directed the superior court to sustain defendants' demurrer to the first and second causes of action. The writ proceeding in the trial court requiring defendants to discharge their mandatory duties under the SVPA was allowed to go forward.

II. DISCUSSION

A. *Sovereign Immunity and Duty*

Traditionally, the doctrine of sovereign immunity shielded states from both suit and liability. (*Franchise Tax Bd. v. Superior Court* (2011) 51 Cal.4th 1006, 1012, 125 Cal.Rptr.3d 158, 252 P.3d 450; 5 Witkin, Summary of Cal. Law (10th ed. 2005) Torts, § 203, p. 344.) Under the doctrine, a state is immune except to the extent it consents to suit. (See Prosser & Keeton, Torts (5th ed.1984) § 131, p. 1033.) In *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211, 221, 11 Cal.Rptr. 89, 359 P.2d 457, this court abolished the rule of government immunity from tort liability.

***348** **[3]** The Legislature responded by temporarily reinstating former law, then replacing it in 1963 with the Government Claims Act (Gov.Code, § 810 et seq.), which sets out a comprehensive scheme of governmental

liability and immunity statutes. (***316 *Thomas v. City of Richmond* (1995) 9 Cal.4th 1154, 1157, 40 Cal.Rptr.2d 442, 892 P.2d 1185; 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 216, p. 366.) Under the act, a public entity is not liable "[e]xcept as otherwise provided by statute." (Gov.Code, § 815; see *Hoff v. Vacaville Unified School Dist.* (1998) 19 Cal.4th 925, 932, 80 Cal.Rptr.2d 811, 968 P.2d 522.) One such statute is Government Code section 815.6, which provides, "Where a public entity is under a mandatory duty imposed by an enactment that is designed to protect against the risk of a particular kind of injury, the public entity is liable for an injury of that kind proximately caused by its failure to discharge the duty unless the public entity establishes that it exercised reasonable diligence to discharge the duty." (Gov.Code, § 815.6.) Thus, the government may be liable when (1) a mandatory duty is imposed by enactment, (2) the duty was designed to protect against the kind of injury allegedly suffered, and (3) breach of the duty proximately caused injury.

Even when a duty exists, California has enacted specific immunity statutes that, if applicable, prevail over liability provisions. (*Creason v. Department of Health Services* (1998) 18 Cal.4th 623, 635, 76 Cal.Rptr.2d 489, 957 P.2d 1323 (*Creason*); 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 226, p. 375.) However, the first question is whether the plaintiff has alleged the breach of a mandatory duty. (*Creason,* at p. 630, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) If there is no actionable duty, the question of immunity does not arise. (*Ibid.; Caldwell v. Montoya* (1995) 10 Cal.4th 972, 985, 42 Cal.Rptr.2d 842, 897 P.2d 1320; 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 225, p. 374.)

[4] **[5]** Courts have delineated what is necessary to establish a mandatory duty. "First and foremost, ... the enactment at issue [must] be *obligatory,* rather than merely discretionary or permissive, in its directions to **1019 the public entity; it must *require,* rather than merely authorize or permit, that a particular action be taken or not taken." (*Haggis v. City of Los Angeles* (2000) 22 Cal.4th 490, 498, 93 Cal.Rptr.2d 327, 993 P.2d 983 (*Haggis*).) "It is not enough, moreover, that the public entity or officer have been under an obligation to perform a function *if the function itself involves the exercise of discretion.*" (*Ibid.,* italics added.) Moreover, "[c]ourts have ... [found] a mandatory duty only if the enactment 'affirmatively imposes the duty and provides implementing guidelines.' " (*Guzman v. County of Monterey* (2009) 46 Cal.4th 887, 898, 95 Cal.Rptr.3d 183, 209 P.3d 89 (*Guzman*).) " ' "[T]he mandatory nature of the duty must be phrased in explicit and forceful language." [Citation.] "It is not enough that some statute contains mandatory language. *349 In order to recover plaintiffs have to show that there is some *specific* statutory mandate that was violated by the [public entity]." ' [Citations.]" (*Id.* at pp. 910–911, 95 Cal.Rptr.3d 183, 209 P.3d 89.)

[6] **[7]** **[8]** Whether an enactment imposes "a mandatory duty, rather than a mere obligation to perform a discretionary function, is a question of statutory interpretation for the courts." (*Creason, supra,* 18 Cal.4th at p. 631, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The enactment's "language 'is, of course, a most important guide in determining legislative intent, [but] there are unquestionably instances in which other factors will indicate that apparent obligatory language was not intended to foreclose a governmental entity's or officer's exercise of discretion.' " (*Haggis, supra,* 22 Cal.4th at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.) For example, the word "shall" is "mandatory" for purposes of the Welfare and Institutions Code. (§ 15; see Gov.Code, § 14 [same].) "However, as we have emphasized, this term's inclusion in ***317 an enactment does not necessarily create a mandatory duty" within the meaning of Government Code section 815.6. (*Guzman, supra,* 46 Cal.4th at p. 899, 95 Cal.Rptr.3d 183, 209 P.3d 89.)

[9] We have recognized that while the "exercise of discretion may often mark the dividing line between a duty that is mandatory and one that is not [citation], that line is sometimes difficult to draw." (*Guzman, supra,* 46 Cal.4th at p. 899, 95 Cal.Rptr.3d 183, 209 P.3d 89.) "[I]n cases not involving a public entity's ' "quasi-legislative policy-making" ' [citation], the inquiry should focus on whether the entity must 'render a considered decision' [citation], one requiring its expertise and judgment [citations]." (*Ibid.*) *Creason* is illustrative. Sierra Creason and her parents sued the Department of Health Services (DHS) after neonatal testing failed to disclose that Sierra was born without a functioning thyroid gland. (*Creason, supra,* 18 Cal.4th at pp. 626–627, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The complaint alleged that the test DHS designated was deficient, resulting in failure to diagnose Sierra's congenital hypothyroidism, which in turn led to a significant delay in treatment and

irreversible injury. (*Id.* at p. 627, 76 Cal.Rptr.2d 489, 957 P.2d 1323.)

The applicable statutory scheme, the Hereditary Disorders Act (Health & Saf.Code, § 124975 et seq.), provided: "[DHS] shall establish a genetic disease unit," and "[t]he unit shall promote a statewide program of ... testing ... and shall have the responsibility of designating tests and regulations to be used in executing this program. [¶] The ... tests ... shall be in accordance with accepted medical practices and shall be administered to each child born in California once the department has established appropriate regulations and testing methods." (*Id.,* § 125000, subd. (a).) DHS thus had a mandatory duty to establish a neonatal testing program. However, the particular standards for testing and the protocol for reporting were left to its discretion and judgment.

***350** Had DHS taken no action at all, it would have failed to discharge its mandatory duty to designate the tests to be used. But DHS discharged that duty, and the plaintiffs did not allege otherwise. Instead, they argued that the way DHS exercised its judgment in designating tests and implementing procedures caused Sierra's injury. (*Creason, supra,* 18 Cal.4th at pp. 627–628, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The *Creason* court concluded that a demurrer was properly granted. Although DHS's duty to designate tests was mandatory, its formulation of those tests ****1020** and related reporting standards was discretionary and could not give rise to liability. (*Id.* at pp. 629, 635, 76 Cal.Rptr.2d 489, 957 P.2d 1323.)

[10] *Creason* and similar cases illustrate the following distinction. A mandatory duty is created only when an enactment requires an act that is clearly defined and not left to the public entity's discretion or judgment. (*County of Los Angeles v. Superior Court* (2012) 209 Cal.App.4th 543, 550–551, 147 Cal.Rptr.3d 33 (*Faten*).) Such an act is mandated only to the extent of the enactment's precise formulation. When the enactment leaves implementation to an exercise of discretion, "lend[ing] itself to a normative or qualitative debate over whether [the duty] was adequately fulfilled," an alleged failure in implementation will not give rise to liability. (*de Villers v. County of San Diego* (2007) 156 Cal.App.4th 238, 260, 67 Cal.Rptr.3d 253.)

[11] Applying these principles here, we hold that the complaint sufficiently alleges a breach of DMH's mandatory duty to conduct an evaluation with two evaluators. The SVPA specifies that an inmate referred *****318** by DOC "*shall be evaluated* by *two* practicing psychiatrists or psychologists, or one practicing psychiatrist and one practicing psychologist, designated by the Director of Mental Health." (Former § 6601, subd. (d), italics added.) This language is clear, conferring no discretion as to the number of evaluators. (*Haggis, supra,* 22 Cal.4th at p. 502, 93 Cal.Rptr.2d 327, 993 P.2d 983; *Faten, supra,* 209 Cal.App.4th at p. 551, 147 Cal.Rptr.3d 33.) Moreover, the use of *two* evaluators is critical to the SVPA process. A petition for commitment cannot be requested unless both evaluators agree that a person meets the criteria for SVP status. (§ 6601, subd. (d).) If they disagree, the Director of Mental Health must arrange for two independent evaluators to conduct a further examination. Both must concur that the inmate meets the criteria before a commitment petition can be requested. (§ 6601, subds. (e) & (f).) In sum, the enactment's language, taken together with the design of the SVPA process, makes it clear that the Legislature " 'intended to foreclose ... [the] exercise of discretion' " with regard to how many evaluators must be designated to assess persons referred by DOC. (*Haggis,* at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.)

Defendants concede they are obliged to "designate two mental health professionals to conduct the 'full evaluation.' " Citing the discretion woven throughout the SVPA process, however, they argue that the obligation does not amount to a mandatory duty. Defendants note, for example, that the ***351** Director of Corrections first has discretion to determine whether someone might be an SVP, that DOC's subsequent screening is discretionary, and that the evaluators designated by DMH have discretion to determine whether a person meets the SVP criteria. Defendants conclude from this that the *entire* SVPA screening process, including their duty to designate two evaluators, should be considered discretionary. The argument fails. Whatever discretion may be afforded by other provisions, the statute requiring the Director of Mental Health to designate two evaluators affords none.

[12] The only other mandatory duty identified in the complaint is an alleged obligation on the part of DMH to conduct *in-person* examinations of all referred inmates. The Court of Appeal properly rejected this claim. The SVPA states that after an inmate is referred for a full evaluation, DMH "*shall evaluate* the person

in accordance with a standardized assessment protocol" including specific risk factors. (§ 6601, subd. (c), italics added.) However, nowhere does the statute impose a *specific* requirement for in-person examination of referred inmates. As *Guzman* explained, a mandatory duty must be based on an enactment phrased in explicit and forceful language. (*Guzman, supra,* 46 Cal.4th at pp. 910–911, 95 Cal.Rptr.3d 183, 209 P.3d 89.) Noncodified details of the SVP evaluation protocol are left to DMH's judgment and discretion.[8] (§ 6601, subd. (c).) ****1021** Without any specific statutory command, DMH is not subject to a mandatory duty to conduct in-person evaluations of all referred inmates. (*Guzman,* at p. 910, 95 Cal.Rptr.3d 183, 209 P.3d 89.)[9]

*****319** **[13]** As to the second element of Government Code section 815.6, there is no dispute that harm to the public caused by an SVP's release is the kind of risk the SVPA was designed to forestall.[10] The particular mandatory duty at issue here requires the designation of two evaluators. This element of ***352** redundancy built into the review process serves the interest of the inmate as well as the governmental interest in protecting public safety. However, the potential dual benefit does not defeat plaintiff's showing. We have recognized that public safety is a particularly powerful purpose of the SVPA evaluation process. (*Moore v. Superior Court* (2010) 50 Cal.4th 802, 825, 114 Cal.Rptr.3d 199, 237 P.3d 530; *People v. Superior Court (Ghilotti)* (2002) 27 Cal.4th 888, 912, 119 Cal.Rptr.2d 1, 44 P.3d 949.) It is clear that the requirement of two evaluators was designed, in part, to guard against the risk that an SVP might be released.

B. *Proximate Causation*

[14] **[15]** If the first two elements set out in Government Code section 815.6 are satisfied, "the next question is whether the breach ... was a proximate cause of the plaintiff's injury." (*Guzman, supra,* 46 Cal.4th at p. 898, 95 Cal.Rptr.3d 183, 209 P.3d 89; see *Haggis, supra,* 22 Cal.4th at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.)[11] We have recognized that proximate cause has two aspects. " 'One is *cause in fact.* An act is a cause in fact if it is a necessary antecedent of an event.' " (*Ferguson v. Lieff, Cabraser, Heimann & Bernstein* (2003) 30 Cal.4th 1037, 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965 (*Ferguson*).) This is sometimes referred to as "but-for" causation. (E.g., *Cabral v. Ralphs Grocery* *****320** *Co.* (2011) 51 Cal.4th 764, 784, 122 Cal.Rptr.3d 313, 248 P.3d 1170.)[12]

***353** ****1022** **[16]** The second aspect of proximate cause " focuses on public policy considerations. Because the purported [factual] causes of an event may be traced back to the dawn of humanity, the law has imposed additional 'limitations on liability other than simple causality.' [Citation.] 'These additional limitations are related not only to the degree of connection between the conduct and the injury, but also with public policy.' [Citation.] Thus, 'proximate cause "is ordinarily concerned, not with the fact of causation, but with the various considerations of policy that limit an actor's responsibility for the consequences of his conduct." ' [Citation.]" (*Ferguson, supra,* 30 Cal.4th at p. 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965.) As Witkin puts it, "[t]he doctrine of proximate cause limits liability; i.e., in certain situations where the defendant's conduct is an actual cause of the harm, the defendant will nevertheless be absolved because of the manner in which the injury occurred.... Rules of legal cause ... operate to relieve the defendant whose conduct is a cause in fact of the injury, where it would be considered unjust to hold him or her legally responsible." (6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1186, p. 553.)

[17] "Ordinarily, proximate cause is a question of fact which cannot be decided as a matter of law from the allegations of a complaint.... Nevertheless, where the facts are such that the only reasonable conclusion is an absence of causation, the question is one of law, not of fact." (*Weissich v. County of Marin* (1990) 224 Cal.App.3d 1069, 1084, 274 Cal.Rptr. 342; see 6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1184, pp. 551–552; Van Alstyne et al., Cal. Government Tort Liability Practice (Cont.Ed.Bar 2015) § 9.38, pp. 530–530.2.)

The Court of Appeal below relied on a line of cases decided at the pleading stage. All held that proximate cause was not established when a governmental defendant's failure to act allegedly caused injury, but the chain of causation included discretionary determinations for which no liability could be imposed. First in this line is *Whitcombe v. County of Yolo* (1977) 73 Cal.App.3d 698, 141 Cal.Rptr. 189 (*Whitcombe*). There, a probationer with severe mental disorders was arrested but released on bail. Thereafter, he assaulted and severely injured the plaintiffs. They sued the county, its probation department, and

probation officers, claiming the defendants had breached a mandatory duty to investigate the incident leading to the arrest and report the probation violation to the court. (*Id.* at pp. 702–703, 141 Cal.Rptr. 189.) A demurrer was sustained for failure to state a cause of action. (*Id.* at p. 702, 141 Cal.Rptr. 189.) The Court of Appeal affirmed, concluding the plaintiffs could not establish that the alleged breaches were the proximate cause of their injuries. (*Id.* at p. 707, 141 Cal.Rptr. 189.)

***354** The *Whitcombe* court noted that the grant or revocation of probation was left to the discretion of the trial court, which was not bound by a probation officer's report or recommendation, or by any particular fact in the record. "Rather, '[i]t must be guided by considerations pertaining to psychology, sociology and penology, or, in the words of the code, to "the ends of justice"; *****321** by general rules of policy which have not been and in the nature of the case should not be crystallized into positive or definite rules of law.' [Citation.]" (*Whitcombe, supra,* 73 Cal.App.3d at p. 708, 141 Cal.Rptr. 189.) "In view of the latitude accorded the trial court," the claim that the failure to investigate and report the assailant's violations proximately caused the plaintiff's injuries was "specious." (*Ibid.*) Whether or not the trial court reviewed the probation reports, "the proximate cause of [the plaintiffs'] injuries would, at best, be the court's considered decision; manifestly an act immunized from liability under Government Code section 845.8, subdivision (a)." [13] (*Ibid.*)

In *State of California v. Superior Court* (1984) 150 Cal.App.3d 848, 197 Cal.Rptr. 914 (*Perry*), the plaintiffs alleged they were defrauded by a property manager licensed by the Department of Real Estate. They sued, ****1023** claiming the Real Estate Commissioner breached his mandatory duty to investigate a prior fraud complaint against the manager. (*Id.* at p. 852, 197 Cal.Rptr. 914.) The Court of Appeal agreed with the plaintiffs that the commissioner had a mandatory duty to investigate complaints, and that their injury was the kind the statutory mandate was intended to protect against. (*Id.* at pp. 855–856, 197 Cal.Rptr. 914.) However, relying on *Whitcombe,* the court held the plaintiffs could not establish that the alleged breach was the proximate cause of their loss. "[E]ven had the commissioner used due care to investigate the ... complaint, and had discovered ... wrongdoing, there is no reasonable assurance that sanctions would have been imposed that would have prevented plaintiffs' subsequent losses." (*Id.* at p. 857, 197 Cal.Rptr. 914.) "The commissioner's mandatory statutory duty to 'investigate' the ... complaint may not reasonably be read as imposing a mandatory duty ... to *take action* in the event the ... investigation disclose[d] evidence of wrongdoing. Indeed, the Business and Professions Code specifically allows the commissioner discretion as to what action, if any, he deems appropriate to deal with transgressing licensees." (*Id.* at p. 858, 197 Cal.Rptr. 914.)

"Moreover, he cannot act unilaterally to suspend or revoke a license; rather, suspension or revocation can occur only following a formal adjudicatory process at which accusations have to be proved by the Department of Real Estate.... [Citation.] In addition, had the accusations been sustained, ***355** and had the commissioner exercised his discretionary power to impose discipline [citation], that discipline could have been in the form of a license suspension for as little as 15 days [citation]—a penalty that would not have had any obvious effect on plaintiffs' losses. [¶] In short, several procedural steps lie between an initial investigation that discloses evidence of wrongdoing and any eventual imposition of effective sanctions against an offending real estate agent. The causal link is thus tenuous at best." (*Perry, supra,* 150 Cal.App.3d at pp. 858–859, 197 Cal.Rptr. 914, fn. omitted.) The *Perry* court further noted that "plaintiffs' proximate cause argument leads them inexorably into immunities that insulate the commissioner from liability," because the commissioner's discretionary enforcement alternatives were statutorily immunized. (*Id.* at p. 859, fn. 8, 197 Cal.Rptr. 914.)

The third case in this line of authority is *Fleming v. State of California* (1995) 34 Cal.App.4th 1378, 41 Cal.Rptr.2d 63 (*Fleming* *****322**). There, a parolee committed murder. The victim's family alleged that the killer's parole officer had breached a mandatory duty to arrest him for a parole violation. The trial court sustained a demurrer. (*Id.* at pp. 1381–1382, 41 Cal.Rptr.2d 63.) The Court of Appeal affirmed. It reasoned in part that "the failure to arrest [the parolee] was not in itself a cause of the injury, [because] arrest without a period of incarceration would not necessarily have prevented the crime. Incarceration, however, would have involved procedural steps involving the exercise of discretion and thus have broken the causal chain." (*Id.* at p. 1384, 41 Cal.Rptr.2d 63, citing *Perry.*)

[18] After reviewing these cases, the Court of Appeal below concluded that "the distance between defendant's

alleged breach of a mandatory duty and plaintiff's injuries is too [great] to support a Government Code section 815.6 action." Even if DMH had conducted a full evaluation by appointing a second evaluator, the second evaluation would have had to disagree with the first and conclude that Pitre was an SVP; two independent evaluators would then have had to agree that he was an SVP; the designated counsel would have had to make a discretionary decision to file a civil commitment petition; and the trial court would have to have made a discretionary probable cause determination. Ultimately, the trier of fact would have had discretion to deny the petition. We agree with the court below that under the facts pleaded here, proximate cause is absent as a matter of law.

[19] The only mandatory duty established by the complaint's allegations is the duty to use two evaluators; the details of the *manner* in which each evaluator conducts the review are discretionary, so long as they include the statutory criteria. Thus, no actionable breach of duty can be found in the ****1024** single evaluator's failure to conclude that Pitre was an SVP. Nor can plaintiff hypothesize a positive finding by that evaluator as a link in the chain of proximate causation. Instead, she must posit a subsequent unbroken series of ***356** discretionary findings contradicting the first evaluator's conclusion and leading to civil commitment. And as in *Perry,* none of these intermediate findings could individually have determined the outcome. (*Perry, supra,* 150 Cal.App.3d at pp. 858–859, 197 Cal.Rptr. 914.) Pitre's commitment could only have occurred after a multiple-stage review process culminating in a trial and a verdict reached beyond a reasonable doubt. Plaintiff's showing of "but for" causation is weak, because with each step in the review process the results become more speculative. As explained in *Viner v. Sweet, supra,* 30 Cal.4th at page 1241, 135 Cal.Rptr.2d 629, 70 P.3d 1046, the purpose of the "but for" requirement is to safeguard against speculative and conjectural claims.

The policy considerations bearing on the question of proximate cause are also a considerable obstacle to plaintiff's claim. It can always be argued that governmental discretion could only have reasonably been exercised in one way. Yet such arguments turn on questions of degree, and indeed are in tension with the very idea of discretion. We do not hold that the intervention of *any* discretionary decision between breach of a mandatory duty and a subsequent injury will always foreclose a finding of proximate cause.[14] Nor do we hold that *****323** proximate cause can never be established if a mandatory duty imposed by the SVPA is breached. For instance, if DMH failed to evaluate an inmate at all, or neglected to forward a request for a civil commitment after two evaluators found an inmate to be an SVP, a cause of action would not necessarily be barred simply because subsequent discretionary decisions would have been required to prevent the inmate's release.

However, the breach of duty in this case did not result in the absence of any evaluation, or the failure to act on evaluations as required by law. Plaintiff's claim, while premised on the breach of a mandatory duty, is in effect a complaint about *how the evaluation of Pitre was performed.* We note that if the review conducted by the single DMH evaluator had been performed by DOC at the previous stage of the review process, Pitre would have been released without any referral to DMH, and no cause of action would lie. Under these circumstances, as a policy matter, DMH's failure to appoint a second evaluator cannot properly be considered a proximate cause of Pitre's ***357** heinous crime. (See 6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1186, p. 553; *Ferguson, supra,* 30 Cal.4th at p. 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965.)[15]

Accordingly, we conclude that plaintiff's showing fails under both aspects of the proximate cause determination. As a matter of cause in fact it is conjectural, depending on a long series of determinations that would have been required after DMH's breach in order for the injury to have been prevented. As a matter of policy it is problematic, because it trenches closely upon the discretionary functions of the evaluation process established by the SVPA.

Plaintiff argues that *Whitcombe, Perry*, and *Fleming* are distinguishable because none of those cases involved breach of a ****1025** mandatory duty. The assertion is unsupported. The *Perry* court acknowledged a mandatory duty. (*Perry, supra,* 150 Cal.App.3d at p. 855, 197 Cal.Rptr. 914.) The *Whitcombe* and *Fleming* courts necessarily presumed mandatory duties for purposes of their proximate cause analyses. (*Whitcombe, supra,* 73 Cal.App.3d at pp. 707–708, 141 Cal.Rptr. 189; *Fleming, supra,* 34 Cal.App.4th at p. 1384, 41 Cal.Rptr.2d 63.) In any event, we decide the proximate cause issue against plaintiff not because the *Whitcombe* line of cases is controlling, but because the facts pleaded in this complaint

are legally insufficient to connect the breach of mandatory duty with the injury. [16]

***324 III. CONCLUSION

We affirm the Court of Appeal's conclusions. The SVPA imposed a mandatory duty upon defendants to designate two evaluators to assess all persons referred by the DOC. However, plaintiff could not establish that the alleged breach of this duty was a proximate cause of Gomez's death. As the Court of Appeal concluded, plaintiff is free to pursue a writ of mandate requiring defendants to comply with their mandatory duties under the SVPA.

WE CONCUR: CANTIL–SAKAUYE, C.J., CHIN, and CUÉLLAR, JJ.

Concurring Opinion by WERDEGAR, J.

I concur in the court's decision affirming the Court of Appeal's judgment ordering the superior court to sustain ***358** defendants' demurrers to plaintiff's first and second causes of action. I do so, however, on narrower grounds than the majority. The majority holds plaintiff's allegations of proximate cause are both legally insufficient as to cause in fact and in contravention of public policies involving discretionary governmental decisions. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 321–324, 349 P.3d at pp. 1023–1025.) I agree with the first conclusion but not the second.

I

In a typical personal injury action, where the causal relationship between the breach of duty and the injury is relatively plain, "it suffices to plead causation succinctly and generally." (*Bockrath v. Aldrich Chemical Co.* (1999) 21 Cal.4th 71, 78, 86 Cal.Rptr.2d 846, 980 P.2d 398.) "But when, by contrast, ' "the pleaded facts of negligence and injury do not naturally give rise to an inference of causation[,] the plaintiff must plead specific facts affording an inference the one caused the others." ' [Citation.] That is, the plaintiff must allege facts, albeit as succinctly as possible, explaining how the conduct caused or contributed to the injury." (*Ibid.*)

In the present case, the causal connection between the State Department of State Hospitals's failure to employ two mental health professionals to evaluate Gilton Pitre as a potential sexually violent predator (SVP), and Pitre's subsequent rape and murder of plaintiff's sister, is by no means plainly apparent. Both for this reason and because plaintiff's cause of action under Government Code section 815.6 is a statutory one requiring every material fact to be pleaded with particularity (*Bockrath v. Aldrich Chemical Co., supra,* 21 Cal.4th at p. 78, 86 Cal.Rptr.2d 846, 980 P.2d 398; *Lopez v. Southern Cal. Rapid Transit Dist.* (1985) 40 Cal.3d 780, 795, 221 Cal.Rptr. 840, 710 P.2d 907), plaintiff bore the burden of pleading with particularity each fact necessary to show how the agency's alleged breach caused her injury. The rule that a demurrer admits only properly pleaded material facts, not contentions, deductions or conclusions (*Evans v. City of Berkeley* (2006) 38 Cal.4th 1, 6, 40 Cal.Rptr.3d 205, 129 P.3d 394), should be applied here with plaintiff's burden of particularity in mind: to the extent the complaint included only conclusory or inferential claims of factual ****1026** causation, rather than particularized allegations of fact, it was subject to demurrer.

Viewing the complaint in this light, I agree with the majority its allegations of cause in fact were overly speculative and conjectural. (Maj. opn., *****325** *ante,* 188 Cal.Rptr.3d at pp. 321–322, 349 P.3d at pp. 1023–1024.) Plaintiff alleges in a conclusory manner that had the agency employed two clinicians to perform a "full evaluation," rather than a single professional to do a "paper screen[ing]," the two evaluators, on reviewing Pitre's criminal record and seeing the sadistic nature of his prior sex offense, would have determined he qualified as an SVP. But the complaint fails to ***359** include any specific facts as to what part of Pitre's criminal record the single evaluator failed to review or what facts of the prior crime were therefore not before him. For the crucial first step in her hypothetical causative chain, therefore, plaintiff provides only a conclusion, and a rather speculative one at that.

To the extent plaintiff was unable to learn, before filing her complaint, what criminal records were and were not reviewed by the sole evaluator, but had reason to believe identifiable critical information was omitted from his screening that would have been before the required two evaluators pursuant to the agency's "standardized assessment protocol" (Welf. & Inst.Code, § 6601, subd.

(c)), she could have alleged such particular critical omissions on information and belief. (See 4 Witkin, Cal. Procedure (5th ed.2008) Pleading, § 398, pp. 537–538.) If plaintiff had no information and belief with regard to particular critical omissions from the screening materials, as indeed may have been the case, she lacked an adequate basis for claiming the agency's choice of a "screen[ing]" by one professional, instead of an "evaluation" by two, factually caused the agency's failure to refer Pitre to the designated county attorney for an SVP petition. (See Welf. & Inst.Code, § 6601, subd. (d).)

The complaint's deficiencies regarding the hypothetical causative chain's first step, the lack of an evaluation by two mental health professionals, are compounded by its treatment of the final step, Pitre's hypothetical commitment as an SVP. The allegation that Pitre "would have been civilly committed" is entirely conclusory, accompanied by no particularized facts to show that a unanimous jury would have determined, beyond a reasonable doubt, that Pitre was an SVP. (See Welf. & Inst.Code §§ 6603, subd. (f), 6604.)

The complaint may be read to claim that even the *filing* of a commitment petition would have prevented the injury because most such petitions allegedly go to trial and, had a petition been filed and Pitre held for trial past his scheduled release date, "he would not have had the opportunity to murder Alyssa only four days later." But this type of coincidental causation—an allegation that some breach created an opportunity for an injury to occur, without increasing the risk of that injury occurring—is insufficient. (See Rest.3d Torts, Liability for Physical and Emotional Harm, § 30 ["An actor is not liable for harm when the tortious aspect of the actor's conduct was of a type that does not generally increase the risk of that harm."]; *Royal Indem. Co. v. Factory Mut. Ins. Co.* (Iowa 2010) 786 N.W.2d 839, 852["[E]ven where an act may be a factual cause, 'we are convinced that an act which merely places persons in the position where they sustain injury from an unrelated event is not for that reason a legal cause of the injury.' "]; *Berry v. Sugar Notch Borough* (1899) 191 Pa. 345, 348–349, 43 A. 240 [rejecting as ***360** "sophistical" argument that streetcar motorman's speeding was the cause of his injuries when tree fell on his streetcar as it passed: although "it was the particular speed at which he was running [the streetcar] which brought the car to the place of the accident at the moment when the tree blew down[,] ... [t]he same thing might as readily have happened to a car running slowly, or it might have been that a high *****326** speed alone would have carried him beyond the tree to a place of safety."].) [17] The risk of Pitre reoffending was no greater because he was released without a trial than ****1027** had he been released after a trial ending without commitment—the exact timing of his release did not increase the public safety risk he posed. Plaintiff thus cannot establish legal cause merely by showing that absent the agency's breach of duty Pitre would not have been released in time to meet and attack the victim; she must show that absent the breach he would have been committed as an SVP. As just discussed, the complaint lacks particularized, nonconclusory factual allegations to that effect.

A plaintiff could plead factual causation in this context by alleging, on information and belief or otherwise, that through a breach of its mandatory evaluation duty the State Department of State Hospitals overlooked specific available facts regarding the potential SVP, facts so strongly indicative of mental illness and repetitive sexual predation that any decision maker would likely find the person to be an SVP. The allegations of the present complaint do not rise to that necessary level.

II

I concur in the court's judgment on the grounds explained above. I do not, however, agree with the majority that a finding of liability in this case would contravene "policy considerations bearing on the question of proximate cause" (maj. opn., *ante,* 188 Cal.Rptr.3d at p. 322, 349 P.3d at p. 1024) because the hypothetical causative chain on which the agency's liability depends—that two evaluators would have found Pitre to be an SVP, resulting in a referral to the designated county attorney, who would have filed a petition for commitment on which Pitre would have been held beyond his hypothetical release date and ultimately committed—involves discretionary decisions.

The majority cites no public policy stating the outcome of a discretionary decision may not form part of the chain of events a tort complaint hypothesizes as what would have happened but for the defendant's breach of duty. *Actual* discretionary acts by public employees are protected under a public ***361** policy of preventing discretionary governmental decisions from interference or distortion through fear of liability, a policy codified

in the immunity provisions of Government Code section 820.2. But we are concerned here only with discretionary decisions that allegedly *would have* been made, not with actual decisions. As discussed later in this opinion, the protective policy has no logical application to merely hypothetical decisions.

The majority observes vaguely that proving causation through the outcome of discretionary decisions that would have occurred but for the defendant's breach is "in tension with the very idea of discretion." (Maj. opn., *ante,* 188 Cal.Rptr.3d at p. 322, 349 P.3d at p. 1024.) To be sure, the existence of decisional discretion increases the plaintiff's burden on causation, a burden I agree plaintiff here has not met even at the pleading stage. (See pt. I, *ante.*) But the majority cites no principle of law or public policy barring the attempt, and draws no germane factual distinction between this case and those in which such causative proof has been approved, such as *Landeros v. Flood* (1976) 17 Cal.3d 399, 131 Cal.Rptr. 69, 551 P.2d 389, *Henderson* *****327** *v. Newport–Mesa Unified School Dist.* (2013) 214 Cal.App.4th 478, 154 Cal.Rptr.3d 222, and *Alejo v. City of Alhambra* (1999) 75 Cal.App.4th 1180, 89 Cal.Rptr.2d 768. To the extent the majority means to distinguish these cases on the ground that there the but-for chain involved only a single discretionary decision, while here a "series" of such decisions is hypothesized (maj. opn., *ante,* at pp. 323–324, fn. 16, 349 P.3d at p. 1025, fn. 16), the distinction appears merely quantitative and factual, not a matter of public policy. If public policy allows a discretionary decision to form a link in the causative chain, a plaintiff with a sufficiently strong factual case—again, a case absent here—could presumably show that each link in the hypothetical chain was met.

There may be some discretionary governmental decisions so unrestricted by statutory or constitutional rules that one can say, as a matter of law, that their hypothetical outcomes could never be proven. Legislative budgeting decisions, certain sentencing choices and some conditional release determinations come to mind. But the majority makes no attempt to show the decisions involved in finding a person to be an SVP ****1028** belong in this category. Indeed, the majority acknowledges these decisions are constrained by statutory factors and procedures. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 322–323, fn. 14, 349 P.3d at p. 1024, fn. 14.) One might also note that the initial determination whether a person may be an SVP, and should be referred to the designated county attorney for a commitment petition, is made by mental health professionals using a protocol designed by and for such professionals. These are not the types of decisions whose outcomes can never be predicted.

While the majority refrains from expressly relying on the fact that the discretionary governmental decisions necessary for an SVP commitment ***362** would have enjoyed immunity under Government Code section 820.2 (discretionary acts of public employees) or section 845.8, subdivision (a) (parole release determinations), the majority opinion recites with apparent approval the reasoning of two Court of Appeal decisions that employed this rationale. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 321–322, 349 P.3d at pp. 1022–1023; see *State of California v. Superior Court* (1984) 150 Cal.App.3d 848, 859, fn. 8, 197 Cal.Rptr. 914; *Whitcombe v. County of Yolo* (1977) 73 Cal.App.3d 698, 708, 141 Cal.Rptr. 189.) Neither court discussed the point in depth, however, and neither explained how a statutory immunity, or the protective policy that motivates it, can logically apply to a decision that never occurred, so as to preclude liability for breach of a mandatory duty.

How allowing causation to be traced through hypothetical decisions that did not occur would inhibit or distort real decisionmaking when it does occur is entirely unclear. To take an example from the present facts, as long as the designated county attorney knows that the decision not to seek a commitment against a potential SVP is immunized from liability, the attorney cannot be inhibited by the possibility that, in some other case that is never presented for prosecution because the State Department of State Hospitals does not make a referral, an injured plaintiff may allege the attorney *would* have sought a commitment had the decision been presented.

Neither the majority opinion nor the lower court decisions on which it relies put forward a logical ground for concluding the proof of causation in circumstances like those presented here would violate an established public policy.

*****328 III**

For the reasons given above, I concur in the result and in part of the majority's reasoning, but not in the majority's

conclusion that policy considerations negate proximate cause as a matter of law.

We Concur: LIU, and KRUGER, JJ.

All Citations

61 Cal.4th 339, 349 P.3d 1013, 188 Cal.Rptr.3d 309, 15 Cal. Daily Op. Serv. 5466, 2015 Daily Journal D.A.R. 5939

Footnotes

1 Unspecified statutory references are to the Welfare and Institutions Code.

2 "Sexually violent offense" is defined in section 6600, subdivision (b).

3 Citations to former SVPA sections are to the law as it existed in 2007, as amended by Proposition 83, approved by the voters on November 7, 2006. (73D West's Ann. Welf. & Inst.Code (2007) p. 107 et seq.; see *McKee, supra,* 47 Cal.4th at p. 1186, 104 Cal.Rptr.3d 427, 223 P.3d 566.) Although the SVPA has subsequently been further amended, none of the changes are material for purposes of our analysis.

4 DMH is now petitioner and defendant State Department of State Hospitals, and DOC is now the Department of Corrections and Rehabilitation. Here we use the state entities' former names as set out in the applicable 2007 version of the SVPA.

5 Each county's board of supervisors is required to designate either the district attorney or the county counsel to pursue SVPA civil commitment action s. (§ 6601, subd. (i).)

6 On our own motion, we take judicial notice of the fact that Pitre was convicted in 2010 for the rape and murder of Gomez. (Evid.Code, § 452.) He received consecutive terms of 75 years to life and 25 years to life, consecutive to 10 years for two prior conviction enhancements.

7 Defendants invoked Government Code section 845.8, subdivision (a), which provides that a public entity or employee is not liable for "[a]ny injury resulting from determining whether to parole or release a prisoner...."

8 Plaintiff contends that permitting DMH to merely review available records would duplicate the DOC screening mandated by section 6601, subdivision (b). Not so. Unlike the DOC screening, DMH's evaluation must be conducted by practicing psychologists and/or psychiatrists and must consider the factors identified in section 6601, subdivision (c).

9 The complaint relies on an uncodified statute enacted in 2008, in which the Legislature stated, "The [SVP] civil commitment program requires *clinical evaluations* of potential [SVPs] for possible commitment...." (Stats.2008, ch. 601, § 1, subd. (b), pp. 4293–4294, italics added.) Even assuming that a mandatory duty could arise from an uncodified legislative declaration, and even if the 2008 legislation were relevant to our construction of the 2007 version of the SVPA, the reference to "clinical evaluations" is ambiguous. It is not clear whether the phrase refers to in-person assessments, or merely evaluations by practicing clinicians.

10 An uncodified statement accompanying the SVPA's enactment in 1996 declared: "The Legislature finds and declares that a small but extremely dangerous group of sexually violent predators that have diagnosable mental disorders can be identified while they are incarcerated. These persons are not safe to be at large and if released represent a danger to the health and safety of others in that they are likely to engage in acts of sexual violence. The Legislature further finds and declares that it is in the interest of society to identify these individuals prior to the expiration of their terms of imprisonment. It is the intent of the Legislature that once identified, these individuals, if found to be likely to commit acts of sexually violent criminal behavior beyond a reasonable doubt, be confined and treated until such time that it can be determined that they no longer present a threat to society.

"The Legislature further finds and declares that while these individuals have been duly punished for their criminal acts, they are, if adjudicated sexually violent predators, a continuing threat to society. The continuing danger posed by these individuals and the continuing basis for their judicial commitment is a currently diagnosed mental disorder which predisposes them to engage in sexually violent criminal behavior. It is the intent of the Legislature that these individuals be committed and treated for their disorders only as long as the disorders persist and not for any punitive purposes." (Stats.1995, ch. 763, § 1, p. 5921; see *Hubbart v. Superior Court* (1999) 19 Cal.4th 1138, 1144, fn. 5, 81 Cal.Rptr.2d 492, 969 P.2d 584.)

The 2006 SVPA amendments reflect enhanced concern with protection of the public from sexually violent predators. (See *McKee, supra,* 47 Cal.4th at p. 1186, 104 Cal.Rptr.3d 427, 223 P.3d 566.)

11 Proximate cause is also a necessary element of plaintiff's negligence claims. (6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1181 et seq.; Evid.Code, § 669, subd. (a)(2) [negligence per se].)

12 In cases where concurrent independent causes contribute to an injury, we apply the "substantial factor" test of the Restatement Second of Torts, section 423, which subsumes traditional "but for" causation. This case does not involve concurrent independent causes, so the "but for" test governs questions of factual causation. (*Viner v. Sweet* (2003) 30 Cal.4th 1232, 1239–1241, 135 Cal.Rptr.2d 629, 70 P.3d 1046.)

13 As noted above, Government Code section 845.8, subdivision (a), immunizes public employees from liability for "[a]ny injury resulting from determining whether to parole or release a prisoner...."

14 The degree of discretion conferred by the governing statutes may be a relevant factor. We note that the discretion possessed by the courts in *Whitcombe, supra,* 73 Cal.App.3d 698, 141 Cal.Rptr. 189, and *Fleming, supra,* 34 Cal.App.4th 1378, 41 Cal.Rptr.2d 63, as to whether to release a probationer was considerably broader than the discretion exercised by an SVP evaluator. The Real Estate Commissioner in *Perry* also exercised a greater degree of discretion over the handling of a fraud complaint than do the various actors under the SVPA evaluation scheme. The determination whether an inmate meets the SVP criteria is guided by statutory factors and constrained by statutory procedures. Nevertheless, the SVPA review scheme clearly contemplates the possibility that evaluators may disagree, and here the only DMH evaluator to review Pitre's case found that he was *not* an SVP. Thus, the discretion in question was not so constrained as to provide support for plaintiff's claim that *any* reasonable evaluator would have found Pitre to be an SVP.

15 Because of our conclusion on the proximate cause issue, we do not reach the question whether the immunity conferred by Government Code section 845.8, subdivision (a) would extend to DMH's failure to employ two evaluators.

16 Plaintiff's reliance on cases such as *Landeros v. Flood* (1976) 17 Cal.3d 399, 131 Cal.Rptr. 69, 551 P.2d 389, *Henderson v. Newport–Mesa Unified School Dist.* (2013) 214 Cal.App.4th 478, 154 Cal.Rptr.3d 222, *Alejo v. City of Alhambra* (1999) 75 Cal.App.4th 1180, 89 Cal.Rptr.2d 768, and *Braman v. State of California* (1994) 28 Cal.App.4th 344, 33 Cal.Rptr.2d 608, is unavailing. Plaintiff cites no case, and we have found none, in which a showing of proximate cause was founded on a series of discretionary determinations comparable to the scenario set out in her complaint.

17 The Restatement Third categorizes this rule as one limiting "scope of liability," otherwise known as proximate cause, but acknowledges it can also be considered an instance of the lack of factual cause. (Rest.3d Torts, Liability for Physical and Emotional Harm, § 30, com. a, p. 542; see *id.,* ch. 6, Special Note on Proximate Cause, pp. 492–493.)

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Agency At-A-Glance

This report allows users to view key information for mulitiple Regulating Agencies on one screen. Clicking on the Regulating Agency name will generate a detailed report of the associated Water Systems. If you would like to see all Water Systems from your search criteria click on "See All" located at the bottom of the results table.

Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	75	173,359	61,282
DISTRICT 02 - LASSEN	76	509,495	176,788
DISTRICT 03 - MENDOCINO	54	226,045	70,295
DISTRICT 04 - SAN FRANCISCO	50	3,836,477	987,724
DISTRICT 05 - MONTEREY	29	357,170	92,152
DISTRICT 06 - SANTA BARBARA	65	1,265,926	339,471
DISTRICT 07 - HOLLYWOOD	23	1,206,228	259,502
DISTRICT 08 - SANTA ANA	36	5,274,972	762,668
DISTRICT 09 - SACRAMENTO	43	1,644,292	499,470
DISTRICT 10 - STOCKTON	70	1,121,155	311,822
DISTRICT 11 - MERCED	74	868,460	224,842
DISTRICT 12 - VISALIA	38	637,536	166,675
DISTRICT 13 - SAN BERNARDINO	62	1,701,262	466,810
DISTRICT 14 - SAN DIEGO	34	3,053,812	676,902
DISTRICT 15 - METROPOLITAN	23	5,014,404	860,746
DISTRICT 16 - CENTRAL	31	1,070,998	234,350
DISTRICT 17 - SANTA CLARA	55	1,180,663	291,426
DISTRICT 18 - SONOMA	70	650,823	203,731
DISTRICT 19 - TEHACHAPI	32	121,999	31,637
DISTRICT 20 - RIVERSIDE	40	2,317,098	652,595
DISTRICT 21 - VALLEY	49	255,193	73,810
DISTRICT 22 - ANGELES	19	733,632	160,774
DISTRICT 23 - FRESNO	85	196,513	40,872
DISTRICT 24 - TULARE	60	237,658	57,569
LPA32 - ALPINE COUNTY	2	50	16
LPA33 - AMADOR COUNTY	2	260	98
LPA34 - BUTTE COUNTY	15	2,160	397
LPA37 - CONTRA COSTA COUNTY	17	3,155	365
LPA39 - EL DORADO COUNTY	13	3,612	86
LPA43 - IMPERIAL COUNTY	14	5,667	541
LPA44 - INYO COUNTY	18	2,446	126
LPA46 - KINGS COUNTY	9	2,808	59
LPA49 - LA COUNTY	11	12,628	121
LPA50 - MADERA COUNTY	40	10,780	1,159
LPA56 - MONO COUNTY	17	1,530	412
LPA57 - MONTEREY COUNTY	21	5,233	39
LPA58 - NAPA COUNTY	9	1,083	187
LPA59 - NEVADA COUNTY	9	1,315	119
LPA61 - PLACER COUNTY	4	450	140
LPA62 - PLUMAS COUNTY	19	1,204	503
LPA63 - RIVERSIDE COUNTY	15	3,935	890
LPA64 - SACRAMENTO COUNTY	23	23,835	877
LPA66 - SAN BERNARDINO COUNTY	25	19,333	921
LPA67 - SAN DIEGO COUNTY	28	6,955	630
LPA69 - SAN JOAQUIN COUNTY	51	9,518	1,267
LPA70 - SAN LUIS OBISPO COUNTY	10	2,742	23
LPA72 - SANTA BARBARA COUNTY	7	3,578	146
LPA74 - SANTA CRUZ COUNTY	8	9,057	24
LPA75 - SHASTA COUNTY	16	4,232	122
LPA80 - STANISLAUS COUNTY	30	7,984	683
LPA82 - TEHAMA COUNTY	19	3,024	110
LPA87 - YOLO COUNTY	9	3,562	293
LPA88 - YUBA COUNTY	2	300	156
See All	1656	33,807,606	7,714,423

Agency At-A-Glance

This report allows users to view key information for mulitiple Regulating Agencies on one screen. Clicking on the Regulating Agency name will generate a detailed report of the associated Water Systems. If you would like to see all Water Systems from your search criteria click on "See All" located at the bottom of the results table.

Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	121	29,082	6,976
DISTRICT 02 - LASSEN	56	17,973	11,094
DISTRICT 03 - MENDOCINO	148	47,363	14,685
DISTRICT 04 - SAN FRANCISCO	52	99,444	26,915
DISTRICT 05 - MONTEREY	78	313,757	90,539
DISTRICT 06 - SANTA BARBARA	77	281,507	90,742
DISTRICT 07 - HOLLYWOOD	21	622,982	157,702
DISTRICT 08 - SANTA ANA	15	170,557	43,091
DISTRICT 09 - SACRAMENTO	21	534,426	100,291
DISTRICT 10 - STOCKTON	10	183,594	46,776
DISTRICT 11 - MERCED	215	80,768	22,302
DISTRICT 12 - VISALIA	140	593,914	154,974
DISTRICT 13 - SAN BERNARDINO	40	399,731	102,069
DISTRICT 14 - SAN DIEGO	14	148,697	32,781
DISTRICT 15 - METROPOLITAN	14	681,156	59,499
DISTRICT 16 - CENTRAL	13	371,345	74,336
DISTRICT 17 - SANTA CLARA	115	1,398,867	342,827
DISTRICT 18 - SONOMA	369	60,546	17,601
DISTRICT 19 - TEHACHAPI	143	52,335	17,853
DISTRICT 20 - RIVERSIDE	12	47,423	13,896
DISTRICT 21 - VALLEY	81	167,464	45,799
DISTRICT 22 - ANGELES	22	957,551	220,235
DISTRICT 23 - FRESNO	235	44,482	5,625
DISTRICT 24 - TULARE	194	31,665	4,645
LPA32 - ALPINE COUNTY	22	1,222	450
LPA33 - AMADOR COUNTY	49	4,076	722
LPA34 - BUTTE COUNTY	65	10,868	2,056
LPA35 - CALAVERAS COUNTY	35	3,733	555
LPA37 - CONTRA COSTA COUNTY	76	8,040	2,074
LPA39 - EL DORADO COUNTY	96	11,909	1,741
LPA43 - IMPERIAL COUNTY	44	6,510	1,130
LPA44 - INYO COUNTY	65	6,532	1,907
LPA46 - KINGS COUNTY	19	1,824	220
LPA49 - LA COUNTY	95	20,297	4,059
LPA50 - MADERA COUNTY	36	3,595	1,540
LPA54 - MERCED COUNTY	18	352	150
LPA56 - MONO COUNTY	47	7,418	1,002
LPA57 - MONTEREY COUNTY	292	25,172	6,310
LPA58 - NAPA COUNTY	176	12,960	890
LPA59 - NEVADA COUNTY	54	9,068	1,077
LPA61 - PLACER COUNTY	87	20,443	1,525
LPA62 - PLUMAS COUNTY	110	7,673	1,088
LPA63 - RIVERSIDE COUNTY	215	22,029	8,231
LPA64 - SACRAMENTO COUNTY	122	20,895	3,749
LPA66 - SAN BERNARDINO COUNTY	221	59,194	6,599
LPA67 - SAN DIEGO COUNTY	114	16,620	5,910
LPA69 - SAN JOAQUIN COUNTY	235	24,447	2,810
LPA70 - SAN LUIS OBISPO COUNTY	118	12,311	2,473
LPA72 - SANTA BARBARA COUNTY	112	16,516	1,984
LPA74 - SANTA CRUZ COUNTY	88	10,451	2,320
LPA75 - SHASTA COUNTY	117	14,029	3,624
LPA80 - STANISLAUS COUNTY	172	16,236	2,518
LPA82 - TEHAMA COUNTY	77	7,318	2,431
LPA87 - YOLO COUNTY	73	11,323	1,180
LPA88 - YUBA COUNTY	58	22,416	1,408
See All	5314	7,752,106	1,776,986

Region	District or LPA #	System Number	System Name	OWNER_TYPE_CODE	D_PWS_FED_TYPE_CD	PWS_ST_TYPE_CD	Date permit issued	Submitted inventory?	PWS Contact Info (from SDWIS)	Other Contact Info (SDWIS)				
3	23	1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP	S	C	C	1/17/2017	no schools	Louis.Mendoza@fire.ca.gov	jose.robledo@waterboards.ca.gov				
1	1	1210017	Manila CSD	S	C	C	1/18/2017	x	Manilacsd1@sbcglobal.net					
4	22	1910022	California State Polytechnical Univ - Pomona	S	C	C	1/17/2017	x	jimwats1@msn.com					
4	15	1910801	Fenner Canyon Youth Conservation Camp	S	C	C	1/17/2017	no schools	RON.DRAGOO@FIRE.CA.GOV	Juan.Arriola@waterboards.ca.gov				
2	5	2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD	S	NTNC	NTNC	1/17/2017		#N/A	#N/A				
2	5	2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD	S	C	C	1/17/2017	no schools	Refugio.Jimenez@cdcr.ca.gov					
2	5	2710851	SALINAS VALLEY STATE PRISON	S	C	C	1/17/2017	no schools	samuel.ochoajr@cdcr.ca.gov					
5	13	3610114	CLAWA	S	C	C	1/17/2017	x	CLAWA1@VERIZON.NET					
5	14	3710802	LA CIMA FIRE CENTER	S	C	C	1/18/2017	no schools	Sandra.Mckovich@fire.ca.gov					
2	17	4310028	San Jose State University	S	C	C	1/17/2017	no schools	adam.salvadalena@sjsu.edu					
2	5	4410301	CSP - BIG BASIN STATE PARK	S	C	C	1/17/2017		Kelley.howard@parks.ca.gov					
2	18	4910027	SONOMA STATE UNIVERSITY	S	C	C	1/17/2017	x	patricia.simmons@sonoma.edu	marianne.watada@waterboards.ca.gov				
3	24	5410801	PORTERVILLE DEVELOPMENTAL CENTER	S	C	C	1/17/2017	no schools	Frank.Chandler@pdc.dds.ca.gov	travis.young@waterboards.ca.gov				

Company	CSD, District, PUD, MUD, Community	City, Town, County
Lukins Brothers Water Company	Gasquet CSD	City of Crescent City
DORABELLE MUTUAL WATER COMPANY	Riverside CSD	Georgetown Divide PUD
EASTON ESTATES WATER COMPANY	Phillipsville CSD	City of Arcata
Highlands Mutual Water Company	Weott CSD	City of Blue Lake
Mt. Konocti Mutual Water Company	Briceland CSD	City of Eureka
Howell Mountain Mutual Water Company	Orleans CSD	Town of Scotia LLC
GOLDEN STATE WATER COMPANY - BAY POINT	Humboldt CSD	City of Rio Dell
CAL AM WATER COMPANY - CHUALAR	Redway CSD	City of Trinidad
CAL AM WATER COMPANY - BISHOP	McKinleyville CSD	City of Alturas
CAL AM WATER COMPANY - MONTEREY	Jacoby Creek CSD	City of Dorris
CAL AM WATER COMPANY - AMBLER PARK	Loleta CSD	City of Dunsmuir
GOLDEN STATE WATER COMPANY - LOS OSOS	Westhaven CSD	Town of Fort Jones
GOLDEN STATE WATER COMPANY - NIPOMO	McCloud CSD	City of Etna
GOLDEN STATE WATER COMPANY - EDNA	Happy Camp CSD	City of Mt. Shasta
GOLDEN STATE WATER COMPANY-CYPRESS RIDGE	Lewiston CSD	City of Weed
SAN VICENTE WATER COMPANY	Weaverville CSD	City of Tulelake
GOLDEN STATE WATER COMPANY - ORCUTT	IVCSD - Greenville	City of Yreka
GOLDEN STATE WATER COMPANY - TANGLEWOOD	Quincy CSD	City of Susanville
GOLDEN STATE WATER COMPANY - LAKE MARIE	Fall River Valley CSD	City of Roseville
YERBA BUENA WATER COMPANY	Centerville CSD	City of Anderson
GOLDEN STATE WATER COMPANY - OJAI	Clear Creek CSD - Anderson	City of Redding
GOLDEN STATE WATER COMPANY - SIMI VALLEY	Clearlake Oaks County Water District	Lakeport, City Of
Bellflower - Somerset Mutual Water Company	Konocti County Water District	City Of 10,000 Buddhas
Tract 180 Mutual Water Company	Kelseyville Co Waterworks District 3	Fort Bragg, City Of
Tract 349 Mutual Water Company	Upper Lake County Water District	Ukiah, City Of
Valley View Mutual Water Company	Lower Lake County Water District	Willits, City Of
Walnut Park Mutual Water Company	Cobb Area County Water District	Calistoga, City Of
Charles Brown Water Company	Callayomi County Water District	Napa, City Of
Orange Vale Water Company	Hidden Valley Lake Community Services District	St. Helena, City Of
Fruitridge Vista Water Company	Elk County Water District	American Canyon, City Of
LAKE ALPINE WATER COMPANY	Westport County Water District	Town Of Yountville
Averydale Mutual Water Company	Willow County Water District	CITY OF HAYWARD
BASS LAKE WATER COMPANY	Millview County Water District	CITY OF PLEASANTON
MADERA VALLEY WATER COMPANY	Redwood Valley County Water District	CITY OF LIVERMORE
SIERRA PARK WATER COMPANY, INC.	Hopland Public Utility District	SFPUC-TOWN OF SUNOL
SONORA WATER COMPANY INC	Laytonville County Water District	CITY OF ANTIOCH
Bakman Water Company	ALAMEDA COUNTY WATER DISTRICT	CITY OF BRENTWOOD
Oildale Mutual Water Company	DUBLIN SAN RAMON SERVICES DISTRICT	CITY OF MARTINEZ
Vaughn Water Company, Inc.	CONTRA COSTA WATER DISTRICT	CITY OF PITTSBURG
Lynwood Park Mutual Water Company	DIABLO WATER DISTRICT	TOWN OF DISCOVERY BAY
Havasu Water Company	RURAL NORTH VACAVILLE WATER DISTRICT	SFPUC-CITY DISTRIBUTION DIVISION
Fallsvale Service Company	MARINA COAST WATER DISTRICT	CITY OF BENICIA
Montebello Land And Water Company	PAJARO COMMUNITY SERVICES DISTRICT	CITY OF FAIRFIELD
Ontario Municipal Utilties Company	PANOCHE WATER DISTRICT	CITY OF RIO VISTA
Western Heights Water Company	SUNNYSLOPE COUNTY WATER DISTRICT	CITY OF VALLEJO
Riverside Highland Water Company	SCOTTS VALLEY WATER DISTRICT	CITY OF VACAVILLE
San Antonio Water Company	SAN LORENZO VALLEY WATER DISTRICT	CITY OF DIXON
Valencia Heights Water Company	SOQUEL CREEK WATER DISTRICT	CITY OF VALLEJO-LAKES SYSTEM
Sheep Creek Water Company	AVILA BEACH COMMUNITY SERVICES DISTRICT	CITY OF GONZALES
Devore Water Company	SAN SIMEON CSD	CWSC KING CITY
PINE HILLS MUTUAL WATER COMPANY	SAN MIGUEL COMMUNITY SERVICES DISTRICT	FCSA #34/ MILLERTON NEW TOWN
El Dorado Mutual Water Company	HERITAGE RANCH CSD	CITY OF WATSONVILLE
Sunny Slope Water Company	LOS OSOS COMMUNITY SERVICES DISTRICT	LOMPOC-CITY WATER UTILITY DIV
Valley Water Company	TEMPLETON CSD	CITY OF SANTA BARBARA WATER DEPARTMENT
Valencia Water Company	CUYAMA COMMUNITY SERVICES DISTRICT	COALINGA-CITY
Southern CA Edison Company - Santa Catalina	MISSION HILLS CSD	KINGSBURG, CITY OF
Bellflower Home Gardens Water Company	SIERRA CEDARS CSD	SATICOY COUNTRY CLUB-CITY OF VENTURA
Las Flores Water Company	Artois CSD	Butte City CSD
Lincoln Avenue Water Company	VENTURA RIVER WATER DISTRICT	City of Orland
Maywood Mutual Water Company #1	Elk Creek CSD	Pico Rivera - City, Water Department
Maywood Mutual Water Company #2	CHANNEL ISLANDS BEACH CSD	Glendora - City, Water Department
Maywood Mutual Water Company #3	CAMROSA WATER DISTRICT	Long Beach - City, Water Department
NORMCO WATER COMPANY	Butte City CSD	Lomita - City, Water Department
Mesa Crest Water Company	Kinneloa Irrigation District	Monterey Park - City, Water Department
LITTLE BEAR WATER COMPANY	Littlerock Creek Irrigation District	Paramount - City, Water Department
CAL AM WATER COMPANY - TORO	Orchard Dale Water District	Covina - City, Water Department
CAL AM WATER COMPANY - HIDDEN HILLS	Palmdale Water District	Sierra Madre - City, Water Department
TASCO SPRECKELS WATER COMPANY	Pico Water District	Signal Hill - City, Water Department
San Jose Water Company	San Gabriel County Water District	Whittier - City, Water Department
Great Oaks Water Company, Inc.	Orick CSD	Burbank - City, Water Department
CAZADERO WATER COMPANY, INC.	Palmer Creek CSD	Lakewood - City, Water Department
BRANGER MUTUAL WATER COMPANY, INC.	Mesa Water District	City of Fortuna
PENNGROVE WATER COMPANY (PUC)	Laguna Beach County Water District	Anaheim, City of
KENWOOD VILLAGE WATER COMPANY (PUC)	Moulton Niguel Water District	Brea, City of
Erskine Creek Water Company	El Toro Water District	Buena Park, City of
Mil Potrero Mutual Water Company	Serrano Water District	Fullerton, City of
Mountain Mesa Water Company	Irvine Ranch Water District	La Habra, City of
NUEVO WATER COMPANY	Willow Creek CSD	Newport Beach, City of
SANTA ANA RIVER WATER COMPANY	Trabuco Canyon Water District	Orange, City of
Hynes Estates Mutual Water Company	Manila CSD	San Juan Capistrano, City of
Page Avenue Mutual Water Company	Santa Margarita Water District	San Clemente, City of
East Pasadena Water Company	El Dorado Irrigation District - Main	Yorba Linda, City of

MCMAHON ROAD MUTUAL WATER COMPANY	South Tahoe Public Utilities District	Santa Ana, City of
RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	Fieldbrook Glendale CSD	Seal Beach, City of
BEST ROAD MUTUAL WATER COMPANY	Sacramento Suburban Water District	Tustin, City of
Terrace Water Company	Carmichael Water District	Huntington Beach, city of
NACIMIENTO WATER COMPANY	Citrus Heights Water District	Garden Grove, City of
O'Connor Tract Co-Operative Water Company	Del Paso Manor Water District	Westminster, City of
Palo Alto Park Mutual Water Company	Fair Oaks Water District	La Palma, City of
BIG BASIN WATER COMPANY	San Juan Water District	Oceanside, City of
FOREST LAKES MUTUAL WATER COMPANY	Florin County Water District	City of Placerville - Main
HARRIS FEEDING COMPANY	Westwood CSD	City of Grass Valley
RANDAL'S RANCHETTE MUTUAL WATER COMPANY	Leavitt Lake CSD	City of Nevada City
CASITAS MUTUAL WATER COMPANY	UNION PUBLIC UTILITY DISTRICT	City Folsom - Main
KINGS RIVER ESTATES MUTUAL WATER COMPANY	LINDEN COUNTY WATER DISTRICT	City of Sacramento
SOUTH KAWEAH MUTUAL WATER COMPANY	DENAIR COMMUNITY SERVICES DISTRICT	City of Folsom - Ashland
DIXON WATER COMPANY	BALLICO CSD	City of Davis
Farmington Water Company (Private)	PLANADA CSD	City of West Sacramento
DORABELLE MUTUAL WATER COMPANY	HILMAR COUNTY WATER DISTRICT	City of Woodland
LAS DELTAS MUTUAL WATER SYSTEM	SANTA NELLA COUNTY WATER DISTRICT	CITY OF JACKSON
MUSICK HEIGHTS MUTUAL	TWAIN HARTE COMMUNITY SERVICES DISTRICT	PLYMOUTH, CITY OF
Highlands Mutual Water Company	LAKE DON PEDRO CSD	ANGELS, CITY OF
Mt. Konocti Mutual Water Company	Pinedale County Water District	ESCALON, CITY OF
Howell Mountain Mutual Water Company	Malaga County Water District	LODI, CITY OF
ATASCADERO MUTUAL WATER CO	Arvin Community Services District	MANTECA, CITY OF
MORRO ROCK MUTUAL WATER CO	East Niles Community Services District	RIPON, CITY OF
LA CUMBRE MUTUAL WATER CO	Buttonwillow County Water District	TRACY, CITY OF
MIDDLE ROAD MUTUAL WATER CO	Lamont Public Utility District	CITY OF STOCKTON
SAN CAYETANO MUTUAL WATER CO	West Kern Water District	CITY OF LATHROP
SENIOR CANYON MUTUAL WATER CO	Greenfield County Water District	CITY OF MODESTO, SALIDA
SIETE ROBLES MUTUAL WATER CO	Lost Hills Utility District	CITY OF WATERFORD
SISAR MUTUAL WATER CO	Armona Community Services District	HUGHSON, CITY OF
TICO MUTUAL WATER CO	Stratford Public Utility District	MODESTO, CITY OF
COMMUNITY MUTUAL WATER CO	Home Garden Community Services District	CITY OF NEWMAN-WATER DEPARTMENT
SOUTH MOUNTAIN MUTUAL WATER CO	Kettleman City Community Services District	OAKDALE, CITY OF
CYPRESS MUTUAL WATER CO INC	Del Oro Traver District	PATTERSON, CITY OF
DEL NORTE MUTUAL WATER CO.	Pixley Public Utility District	RIVERBANK, CITY OF
SAVIERS ROAD MUTUAL WATER CO	Springville Public Utility District	TURLOCK, CITY OF
SOLANO VERDE MUTUAL WATER CO	Strathmore Public Utility District	CERES, CITY OF
PLEASANT VALLEY MUTUAL WATER CO	Tipton Community Services District	CITY OF FRESNO
RIO MANOR MUTUAL WATER CO	Richgrove Community Services District	CHOWCHILLA CITY WATER DEPT
CRESTVIEW MUTUAL WATER CO	Woodville Public Utility District	CITY OF MADERA
CLOVERDALE MUTUAL WATER CO.	Poplar Community Services District	CITY OF ATWATER
Bellflower - Somerset Mutual Water Company	Terra Bella Irrigation District	CITY OF DOS PALOS
Tract 180 Mutual Water Company	Alpaugh Community Services District	CITY OF GUSTINE
Tract 349 Mutual Water Company	Sierra Highland CSD	CITY OF LIVINGSTON
Valley View Mutual Water Company	Indian Creek CSD	CITY OF LOS BANOS
Walnut Park Mutual Water Company	Big Pine CSD	CITY OF MERCED
Averydale Mutual Water Company	West Valley Water District	TUD - SONORA/JAMESTOWN WATER SYSTEM
SONORA MEADOWS MUTUAL WTR CO	lake Arrowhead CSD	City of Clovis
Oildale Mutual Water Company	Big Bear City CSD	City of Delano
Meadow Creek Mutual Water Co.	Cucamonga Valley Water District	City of McFarland
Lynwood Park Mutual Water Company	Hesperia Water District	City of Shafter
PINE HILLS MUTUAL WATER COMPANY	Joshua Basin Water District	City of Wasco
RANCHO PAUMA MUTUAL WC	LACSD - Rimforest	City of Bakersfield
PINE VALLEY MUTUAL WC	Quartz Hill Water District	City of Avenal
El Dorado Mutual Water Company	Twentynine Palms Water District	City of Hanford
Maywood Mutual Water Company #1	Victorville Water District	City of Corcoran
Maywood Mutual Water Company #2	Yucaipa Valley Water District	City of Lemoore
Maywood Mutual Water Company #3	East Valley Water District	Kettleman City Community Services District
BRANGER MUTUAL WATER COMPANY, INC.	Hi Desert Water District	City of Bishop
Lake of the Woods Mutual Water Co.	Phelan Pinon Hills CSD	City of Adelanto
Mil Potrero Mutual Water Company	HEBER PUBLIC UTILITY DISTRICT	Big Bear City CSD
BOX SPRINGS MUTUAL WC	JULIAN COMMUNITY SERVICES DISTRICT	City of Chino
Hynes Estates Mutual Water Company	YUIMA MUNICIPAL WATER DISTRICT IDA	City of Loma Linda
Page Avenue Mutual Water Company	YUIMA MUNICIPAL WATER DISTRICT	City of Colton
South Midway City Mutual Water	DESCANSO COMMUNITY SERVICES DISTRICT	City of Needles
Midway City Mutual	HELIX WATER DISTRICT	City of Chino Hills
MCMAHON ROAD MUTUAL WATER COMPANY	VISTA IRRIGATION DISTRICT	City of Redlands MUD Water Division
AROMAS HILLS MUTUAL WATER ASSOCIATION	OTAY WATER DISTRICT	City of Rialto
RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	Valley County Water District	City of San Bernardino
BEST ROAD MUTUAL WATER COMPANY	Crescenta Valley Water District	City of Upland
Palo Alto Park Mutual Water Company	Newhall County Water District - Newhall	BRAWLEY, CITY OF
FOREST LAKES MUTUAL WATER COMPANY	Green Valley County Water District	CALEXICO, CITY OF
RANDAL'S RANCHETTE MUTUAL WATER COMPANY	Newhall County Water District - Castaic	EL CENTRO, CITY OF
CASITAS MUTUAL WATER COMPANY	Newhall County Water District - Pinetree	HOLTVILLE, CITY OF
GARDEN ACRES MUTUAL WATER CO	Newhall County Water District -Tesoro Del Valle	IMPERIAL, CITY OF
NYELAND ACRES MUTUAL WATER CO	California Pines CSD	WESTMORLAND, CITY OF
DEMPSEY ROAD MUTUAL WATER CO	La Canada Irrigation District	DEL MAR, CITY OF
NO KAWEAH MUTUAL WATER CO	La Puente Valley County Water District	ESCONDIDO, CITY OF
KINGS RIVER ESTATES MUTUAL WATER COMPANY	Palm Ranch Irrigation District	POWAY, CITY OF
RIVER RETREAT MUTUAL	Walnut Valley Water District	SAN DIEGO, CITY OF
TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC	Mid-Peninsula Water District	Golden State Water Co - Culver City
YOKOHL MUTUAL WATER CO	Guadalupe Valley Municipal Improvement District	El Segundo - City, Water Department
BEVERLY GRAND MUTUAL WATER	Coastside County Water District	Glendale - City, Water Department
CENTRAL MUTUAL WATER CO	CASTROVILLE COMMUNITY SERVICES DISTRICT	Inglewood - City, Water Department
TRIPLE R MUTUAL WATER CO	MARIN MUNICIPAL WATER DISTRICT	La Verne - City, Water Department
WILLIAMS MUTUAL WATER CO	NORTH MARIN WATER DISTRICT	Los Angeles - City, Dept. Of Water & Power

GRIER MUTUAL WATER CO
EAST THREE RIVERS MUTUAL
SOUTH KAWEAH MUTUAL WATER COMPANY
SOULTS MUTUAL WATER CO
BEDEL MUTUAL WATER CO
SUNRISE MUTUAL WATER CO.
DEER MEADOW MUTUAL
FAIRWAY MUTUAL WATER CO
SIERRA MUTUAL WATER CO
SOUTH FORK ESTATES MUTUAL WATER CO
ALI MUTUAL WATER CO
LAKE FOREST MUTUAL W.C.
CAL AMERICAN WATER CO
CAL AMERICAN WC - LAS POSAS ESTATES
Lucerne Water Co. - Cal Water Service
CALIFORNIA WATER SERVICE - LIVERMORE
CALIFORNIA WATER SERVICE CO. - DIXON
ALCO WATER SERVICE
CALIFORNIA WATER SERVICE CO - WESTLAKE
WARRING WATER SERVICE INC
OAK PARK WATER SERVICE
GSWC - Arden Water Service
Elk Grove Water Service
CALIFORNIA WATER SERVICE - STOCKTON
California Water Service - Bear Gulch
California Water Service - San Carlos
California Water Service - San Mateo
California Water Service - South San Francisco
California Water Service - Los Altos Suburban
Cal-Water Service Co- Chico
Cal-Water Service Co - Oroville
Cal-Water Service Co - Hamilton City
Cal-Water Service Co - Willows
Cal-Water Service Co - Marysville
California Water Service Co - Dominguez
California Water Service Co - East Los Angeles
California Water Service Co - Palos Verdes
California Water Service Co - Hermosa/Redondo
California Water Service Co - Leona Valley
ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)

VALLEY OF THE MOON WATER DISTRICT
FORESTVILLE COUNTY WATER DISTRICT
BODEGA BAY PUBLIC UTILITY DISTRICT
Washington Water District
Boron Community Services District
Frazier Park Public Utilities District
Mojave Public Utilities District
Rand Communities Water District
Indian Wells Valley Water District
Rosamond Community Services District
Stallion Springs Community Services District
Desert Lake Community Services District
Inyokern Community Services District
Bear Valley Community Services District
Golden Hills Community Services District
Lebec County Water District
North Edwards Water District
IDYLLWILD WATER DISTRICT
RANCHO CALIFORNIA WATER DISTRICT
CABAZON WATER DISTRICT
TEMESCAL VALLEY WATER DISTRICT
Durham Irrigation District
Paradise Irrigation District
Thermalito Water & Sewer District
Sutter CSD
Gerber Las Flores CSD
Los Molinos CSD
South Montebello Irrigation District
Rowland Water District
Las Virgenes Municipal Water District
IVCSD - Crescent Mills
DEL ORO WATER CO - METROPOLITAN DISTRICT
AROMAS WATER DISTRICT
Montara Water and Sanitary District
Estero Municipal Improvement District
North Coast County Water District
Westborough County Water District
CARPINTERIA VALLEY WATER DISTRICT
San Martin County Water District
Purissima Hills Water District
DAVENPORT COUNTY SANITATION DISTRICT
CENTRAL WATER DISTRICT
Shasta CSD
Hornbrook CSD
Lake Shastina CSD
LATON COMMUNITY SERVICES DISTRICT
RIVERDALE PUBLIC UTILITY DISTRICT
TRANQUILLITY IRRIGATION DISTRICT
DUCOR CSD
ALLENSWORTH CSD
TEVISTON CSD
SULTANA CSD
TRACT 92 CSD
PONDEROSA CSD
EAST OROSI CSD
PATTERSON TRACT CSD
OROSI PUBLIC UTILITY DISTRICT
Knights Landing Services District
Esparto CSD
Crows Landing CSD
Knights Ferry CSD
Madison Service District
Cacheville Service District
BIG LAGOON CSD
CASMALIA COMMUNITY SERVICES DISTRICT
Georgetown Divide PUD
Chester PUD
EAST BAY MUD
Truckee-Donner PUD - Main
Herlong PUD
CALAVERAS PUD
VALLEY SPRINGS PUD
June Lake PUD - Village
Bridgeport PUD
City of Redlands MUD Water Division
FALLBROOK PUD
June Lake PUD - Down Canyon
Lee Vining PUD
BOLINAS COMMUNITY PUD
Arbuckle PUD
Maxwell PUD
Olivehurst PUD
North Tahoe PUD - Main
Foresthill PUD
Tahoe City PUD - Main
Sierraville PUD
Downieville PUD
CUTLER PUD
EARLIMART PUD
SUNSET WEST COMMUNITY LLC

Pasadena - City, Water Department
Pomona - City, Water Department
Vernon - City, Water Department
Norwalk - City, Water Department
Alhambra - City, Water Department
Cerritos - City, Water Department
Downey - City, Water Department
El Monte - City, Water Department
Manhattan Beach - City, Water Department
San Fernando - City, Water Department
Santa Monica - City, Water Division
South Pasadena - City, Water Department
City of Brisbane
City of Burlingame
City of Daly City
City of Menlo Park
City of Millbrae
CITY OF GREENFIELD
City of Redwood City
City of San Bruno
City of East Palo Alto
CITY OF SOLEDAD
City of Gilroy
City of Morgan Hill
City of Mountain View
City of Palo Alto
City of Santa Clara
City of Sunnyvale
City of Cupertino
City of San Jose - North San Jose/Alviso
City of San Jose - Evergreen/Edenvale/Coyote
CLOVERDALE, CITY OF
HEALDSBURG, CITY OF
PETALUMA, CITY OF
SANTA ROSA, CITY OF
SEBASTOPOL, CITY OF
SONOMA, CITY OF
ROHNERT PARK, CITY OF
COTATI, CITY OF
WINDSOR, TOWN OF
City of Tehachapi
City of California City
BLYTHE - CITY OF
BANNING, CITY OF
HEMET, CITY OF
NORCO, CITY OF
PERRIS, CITY OF
RIVERSIDE, CITY OF
SAN JACINTO, CITY OF
CORONA, CITY OF
City of Biggs
City of Gridley
City of Colusa
City of Williams
South Midway City Mutual Water
Cal-Water Service Co - Hamilton City
City of Live Oak
City of Yuba City
City of Tehama
City of Corning
City of Red Bluff
City of Wheatland
Arcadia - City, Water Division
Compton - City, Water Department
Hawthorne - City, Water Department
Huntington Park - City, Water Department
Commerce - City, Water Department
Lynwood - City, Water Department
Monrovia - City, Water Department
Montebello - City, Water Department
South Gate - City, Water Department
Beverly Hills - City, Water Department
Torrance - City, Water Department
Santa Fe Springs - City
Midway City Mutual
City of Lincoln
Tahoe City PUD - Main
City of Portola
City of Galt
CITY OF HOLLISTER
CITY OF SAN JUAN BAUTISTA
City of Milpitas
FCSA #43/RAISIN CITY
City of Shasta Lake
City of Loyalton
City of Montague
FIREBAUGH CITY
CITY OF FOWLER
KERMAN, CITY OF
MENDOTA, CITY OF

LOS ALAMOS COMMUNITY SER DIST
COMMUNITY MUTUAL WATER CO
BIOLA COMMUNITY SERVICES DIST
LOCKEFORD COMMUNITY SERV. DIST.
MOUNTAIN HOUSE COMMUNITY SERVICES DIST.
KEYES COMMUNITY SERVICES DIST.
VOLTA COMMUNITY SD
GROVELAND COMMUNITY SERV DIST
Helendale Community SD
JACUMBA COMMUNITY SD
MAJESTIC PINES COMMUNITY SD
Lake Isabella Community Services Dist.
COACHELLA VWD: COVE COMMUNITY JURUPA COMMUNITY SD RUBIDOUX COMMUNITY SD LANARE COMMUNITY SERVICES DIST
DEL REY COMMUNITY SERV DIST
CAMPTONVILLE COMMUNITY SERV DIST
Colusa Co WWD #2 - Princeton
Humboldt Bay MWD
Hydesville Co WD Cedarville CWD
Callahan WD
FCWWD #37/MILE HIGH
FCWWD #38/SKY HARBOUR
FCWWD #40/SHAVER SPRINGS
Lassen CWD #1
Burney WD
FCWWD #42/ALLUVIAL & FANCHER
Bella Vista WD
SLVWD - FELTON WATER SYSTEM
SLO CWWD NO. 23 - SANTA MARGARITA
FCWWD #41/SHAVER LAKE
FCWWD #18/FRIANT
FCWWD #18/MIRA BELLA
VENTURA CWWD NO. 17 - BELL CANYON
MEINERS OAKS CWD
VENTURA CWWD NO. 19 - SOMIS
VENTURA CWWD NO. 1 - MOORPARK
VENTURA WWD NO. 8 - SIMI VALLEY
VENTURA CWWD NO. 38 - LAKE SHERWOOD
South Coast WD-Capo Beach
Rio Linda Elverta CWD
CCWD - WEST POINT
CCWD - JENNY LIND
CCWD - EBBETTS PASS
CCWD - COPPER COVE
MPWD-COULTERVILLE CSA 1
DELHI CWD
Los Angeles CWWD 21 - Kagel Canyon
Inyo County PWD - Independence
Inyo County PWD - Line Pine
Apple Valley Foothill CWD
Apple Valley Heights CWD
Juniper Riviera CWD
Thunderbird CWD
Crestline Village CWD
Monte Vista CWD
Mariana Ranchos CWD
Running Springs WD
Arrowbear Park CWD
SEELEY CWD
VALLECITOS WD
CARLSBAD MWD
LAKESIDE WD
RAINBOW MUNICIPAL WD
RINCON DEL DIABLO MWD (ID-1)
RAMONA MUNICIPAL WD
SAN DIEGUITO WD
VALLEY CENTER MWD
OLIVENHAIN MWD
BORREGO WD
PADRE DAM MWD
RINCON DEL DIABLO MWD (ID-A)
Los Angeles CWWD 40 R38 - Lake Los Angeles
Los Angeles CWWD 40 R39 - Rock Creek
Los Angeles CWWD 40 R35 - Northeast LA
Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands
San Lucas WD
Los Angeles CWWD 36 - Val Verde
LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village
Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey Los Angeles CWWD 37 - Acton
NORTH MARIN WD - PT. REYES
SWEETWATER SPRINGS CWD - GUERNEVILLE
SWEETWATER SPRINGS CWD - MONTE RIO
COACHELLA VWD: I.D. NO. 11
BEAUMONT CHERRY VALLEY WD

CITY OF ORANGE COVE
CITY OF PARLIER
REEDLEY, CITY OF
CITY OF SANGER
SAN JOAQUIN, CITY OF
HURON, CITY OF
DINUBA, CITY OF
EXETER, CITY OF
FARMERSVILLE, CITY OF
LINDSAY, CITY OF
PORTERVILLE, CITY OF
TULARE, CITY OF
WOODLAKE, CITY OF
City of Winters
Alderpoint County Water
SAN JOAQUIN COUNTY - COLONIAL HEIGHTS
SAN JOAQUIN COUNTY - THORNTON
SAN JOAQUIN COUNTY - LINCOLN VILLAGE
SAN JOAQUIN COUNTY - WILKINSON MANOR
Inyo County PWD - Independence
Inyo County PWD - Line Pine
CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR
County Service Area 11
STINSON BEACH COUNTY WTR DIST
HOME GARDENS COUNTY WD
San Joaquin County Water Works #2
NAVAL BASE VENTURA COUNTY, POINT MUGU
NAVAL BASE VENTURA COUNTY, PORT HUENEME

MISSION SPRINGS WD
EASTERN MUNICIPAL WD
ELSINORE VALLEY MWD
HOME GARDENS COUNTY WD
LAKE HEMET MWD
WESTERN MWD - MURRIETA DIVISION
COACHELLA VWD: I.D. NO. 8
WESTERN MWD
WESTERN MWD (ID A - RAINBOW)
Colusa Co WWD #1 - Grimes
Sutter Co WWD #1 (Robbins)
Mineral CWD
Rio Alto WD
Linda CWD
North Yuba WD
Meadow Vista CWD
TRES PINOS CWD
SLVWD-LOMPICO
Cottonwood CWD
San Ardo WD
TEJON-CASTAIC WD- I5 & LAVAL RD

System Classifications

Local	
0105008	CASTLEWOOD DOMESTIC WATER SYSTEM
0110001	ALAMEDA COUNTY WATER DISTRICT
0110005	EAST BAY MUD
0110006	CITY OF HAYWARD
0110008	CITY OF PLEASANTON
0110009	DUBLIN SAN RAMON SERVICES DISTRICT
0110011	CITY OF LIVERMORE
0110012	SFPUC-TOWN OF SUNOL
0110016	ALAMEDA POINT
0310001	CITY OF JACKSON
0310002	AWA, IONE
0310003	AWA, SUTTER CREEK
0310004	PLYMOUTH, CITY OF
0310005	PINE GROVE COMM SERV DIST
0310012	AWA, Buckhorn
0410001	City of Biggs
0410003	Durham Irrigation District
0410004	City of Gridley
0410006	SFWP - Miners Ranch
0410007	Paradise Irrigation District
0410008	Thermalito Water & Sewer District
0410012	SFWP - Bangor
0510001	UNION PUBLIC UTILITY DISTRICT
0510002	CALAVERAS PUD
0510003	ANGELS, CITY OF
0510005	CCWD - WEST POINT
0510006	CCWD - JENNY LIND
0510010	VALLEY SPRINGS PUD
0510016	CCWD - EBBETTS PASS
0510017	CCWD - COPPER COVE
0600005	Colusa Co Service Area #2 - Stonyford
0600008	Colusa Co WWD #1 - Grimes
0600013	Colusa Co WWD #2 - Princeton
0610001	Arbuckle PUD
0610002	City of Colusa
0610003	Maxwell PUD
0610004	City of Williams
0710001	CITY OF ANTIOCH
0710003	CONTRA COSTA WATER DISTRICT
0710004	CITY OF BRENTWOOD
0710006	CITY OF MARTINEZ
0710007	DIABLO WATER DISTRICT
0710008	CITY OF PITTSBURG
0710009	TOWN OF DISCOVERY BAY
0800555	Gasquet CSD
0810001	City of Crescent City
0910001	El Dorado Irrigation District - Main
0910002	South Tahoe Public Utilities District
0910003	City of Placerville - Main
0910013	Georgetown Divide PUD
1000005	BIG CREEK COMMUNITY SERV DIST
1000019	FCSA #30/EL PORVENIR
1000021	FCSA #05/WILDWOOD ISLAND
1000023	FCSA #14/BELMONT MANOR
1000039	FCSA #10/CUMORAH KNOLLS
1000040	FCWWD #37/MILE HIGH
1000042	FCWWD #40/SHAVER SPRINGS
1000078	FCWWD #42/ALLUVIAL & FANCHER
1000186	HELM SCHOOL
1000345	PANOCHE WATER DISTRICT
1000359	FCSA #32/CANTUA CREEK
1000471	FCSA #39 A&B
1000484	FCSA #34/ MILLERTON NEW TOWN
1000546	FCSA #49/ FIVE POINTS
1000550	FCSA #44D/MONTE VERDI
1000551	FCSA #43/RAISIN CITY
1000554	FCSA #10A/MANSIONETTE ESTATES
1000555	FCSA #44C/RIVERVIEW ESTATES
1000570	JUVENILE JUSTICE CAMPUS
101000	City of Clovis
1010004	COALINGA-CITY
1010005	FIREBAUGH CITY
1010006	CITY OF FOWLER
1010007	CITY OF FRESNO
1010017	FCWWD #41/SHAVER LAKE
1010018	KERMAN, CITY OF
1010019	KINGSBURG, CITY OF
1010020	LATON COMMUNITY SERVICES DISTRICT
1010021	MENDOTA, CITY OF
1010023	CITY OF ORANGE COVE
1010025	CITY OF PARLIER
101002	Pinedale County Water District
1010027	REEDLEY, CITY OF
1010028	RIVERDALE PUBLIC UTILITY DISTRICT
1010029	CITY OF SANGER
1010030	TRANQUILLITY IRRIGATION DISTRICT
1010034	SAN JOAQUIN, CITY OF
1010035	DEL REY COMMUNITY SERV DIST
1010039	CARUTHERS COMM SERV DIST
101004	Malaga County Water District
1010044	HURON, CITY OF
1010049	BIOLA COMMUNITY SERVICES DIST
1010051	FCWWD #18/FRIANT
1010052	SIERRA CEDARS CSD
1010055	FCSA #47/QUAIL LAKE ESTATES
1010062	FCWWD #18/MIRA BELLA
1100203	Artois CSD
1100616	Elk Creek CSD
1100711	Butte City CSD
1110001	City of Orland
1200501	Alderpoint County Water
1200518	Riverside CSD
1200553	Weott CSD
1200587	Briceland CSD
1200701	Orick CSD
1200729	Orleans CSD
1206004	Palmer Creek CSD
1210001	City of Arcata
1210002	City of Blue Lake
1210004	City of Eureka
1210006	City of Fortuna
1210009	Humboldt CSD
1210011	Redway CSD
1210012	City of Rio Dell
1210015	Willow Creek CSD
1210016	McKinleyville CSD
1210018	City of Trinidad
1210019	Hydesville Co WD
1210020	Fieldbrook Glendale CSD
1210021	Jacoby Creek CSD
1210022	Resort Imprvmt Dist #1
1210023	Loleta CSD
1210024	Westhaven CSD
1310001	BRAWLEY, CITY OF
1310002	CALEXICO, CITY OF
1310004	EL CENTRO, CITY OF
1310005	HOLTVILLE, CITY OF
1310006	IMPERIAL, CITY OF
1310008	WESTMORLAND, CITY OF
1310011	COACHELLA VWD: I.D. NO. 11
1310011	COACHELLA VWD: I.D. NO. 11
1310013	SEELEY CWD
1400007	Sierra Highland CSD
1410001	City of Bishop
1410005	Indian Creek CSD
1410006	Big Pine CSD
1410008	Inyo County PWD - Independence
1410009	Inyo County PWD - Line Pine
1503270	Lake Isabella Community Services Dist.
1503341	TEJON-CASTAIC WD- I5 & LAVAL RD
151000	Arvin Community Services District
1510002	Boron Community Services District
151000	City of Delano
151000	East Niles Community Services District
1510007	Frazier Park Public Utilities District
151001	Buttonwillow County Water District
151001	Lamont Public Utility District
151001	City of McFarland
1510014	Mojave Public Utilities District
1510016	Rand Communities Water District
1510017	Indian Wells Valley Water District
1510018	Rosamond Community Services District
151001	City of Shafter
1510020	City of Tehachapi
151002	City of Wasco
151002	West Kern Water District

Federal	
1010501	NPS-GRANT GROVE
1310700	NAF EL CENTRO
1510701	Edwards AFB - Main Base
1510703	China Lake Naval Air Weapons Station
161070 0	Lemoore Naval Air Station
271070	FORT HUNTER LIGGETT
3610703	USMC - 29 Palms
3610705	US Army Fort Irwin
3710700	Camp pendleton-North
3710702	Camp Pendleton-South
3710707	USN SAN CLEMENTE ISLAND
3710750	NAS NORTH ISLAND & NAB CORONADO
3810700	PRESIDIO OF SAN FRANCISCO
3810702	TREASURE ISLAND
4300997	Nasa Ames Research Center
4810701	TRAVIS AIR FORCE BASE - DISTRIBUTION
4910701	U.S. COAST GUARD TRAINING CENTER
5210503	Lassen VNP - Headquarters
5610700	NAVAL BASE VENTURA COUNTY, POINT MUGU
5610701	NAVAL BASE VENTURA COUNTY, PORT HUENEME
5810700	Beale Air Force Base

Mixed	
1000041	FCWWD #38/SKY HARBOUR
1000069	SHAVER LAKE HEIGHTS PROP ASSN
2400167	BALLICO CSD
2400201	VOLTA COMMUNITY SD
4000650	MESA DUNES MOBILE HOME ESTATES
5400529	SHADY GROVE MHP
5400600	GOLDEN KEY APARTMENTS
5400604	MOUNTAIN VIEW DUPLEXES
5602140	SATICOY COUNTRY CLUB-CITY OF VENTURA

Private	
4910018	ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)
0110003	CALIFORNIA WATER SERVICE - LIVERMORE
0210001	LAKE ALPINE WATER COMPANY
0300062	Hope Foundation
0410002	Cal-Water Service Co- Chico
0410005	Cal-Water Service Co - Oroville
0410009	Del Oro Water Co - Magalia
0410011	Del Oro Water Co - Paradise Pines
0410018	Del Oro Water Co - Stirling Bluffs
0710002	GOLDEN STATE WATER COMPANY - BAY POINT
0910007	Lukins Brothers Water Company
1000001	ALDER SPRINGS
1000004	BELMONT WATER CORPORATION
1000016	DORABELLE MUTUAL WATER COMPANY
1000018	EASTON ESTATES WATER COMPANY
1000053	LANARE COMMUNITY SERVICES DIST
1000054	LAS DELTAS MUTUAL WATER SYSTEM
1000056	MEADOW LAKES CLUB
1000057	DEL ORO WATER CO - METROPOLITAN DISTRICT
1000058	MUSICK CREEK TRACT ASSOCIATION
1000059	MUSICK HEIGHTS MUTUAL
1000060	MUSICK MEADOWS #1
1000061	MUSICK MEADOWS #2
1000063	NEW AUBERRY WATER ASSOCIATION
1000071	LAKEVIEW IMPROVEMENT ASSOICATION #1
1000072	SHAVER LAKE POINT #2
1000075	TRACT 1199 WATER SYSTEM
1000199	ALICE MANOR
1000200	RUBYS VALLEY CARE HOME
1000213	HARRIS FARMS/HORSE BARN
1000229	GREEN ACRES MOBILE HOME ESTATE
1000238	CAMDEN TRAILER PARK
1000244	SHADY LAKES MOBILE HOME PARK
1000247	SHERWOOD FOREST MHP
1000248	DOUBLE L MOBILE RANCH PARK
1000257	MT ARARAT MOBILE HOME PARK
1000259	NEW HORIZONS MOBILE/RV PARK
1000260	SANDY CREEK VILLAGE MHP
1000265	MARY LOU MOBILE HOME PARK
1000267	KINGS CANYON MOBILE HOME PARK
1000277	ELM COURT
1000295	KINGS PARK APARTMENTS
1000298	WOODWARD BLUFFS MHP
1000299	THREE PALMS MOBILEHOME PARK
1000324	MANNING GARDENS CARE CENTER INC
1000366	SUNNYSIDE CONVALESCENT HOSP
1000369	ZONNEVELD DAIRY - CEDAR
1000377	ST NICHOLAS RANCH & RETREAT
1000378	SUNSET WEST COMMUNITY LLC
1000405	PIEDRA PARK ASSOCIATION
1000407	GEORGE COX WATER SYSTEM
1000426	RIVERBEND MOBILE HOME & RV PARK
1000430	COUNTRY VIEW ALZHEIMER CENTER
1000445	LINDA VISTA FARMS
1000472	PG&E HELMS SUPPORT FACILITY
1000585	MURRIETA/HERNANDEZ FARMS
1000622	ZONNEVELD DAIRY - CERINI
1009006	PAPPAS & CO (COALINGA)
1009020	FIVE POINTS RANCH
1009023	BRITZ/COLUSA
1009027	HARRIS FARMS HEADQUARTERS
1009028	HARRIS FARMS SOUTH #101-144
1009039	PAPPAS & CO (MENDOTA)
1009051	CANTUA CREEK VINEYARDS, IV, LLC.
1009078	HARRIS FEEDING COMPANY
1009111	SCE/BIG CREEK POWERHOUSE #1
1009120	RAU DAIRY
1009147	FARMING D
1009172	VAQUERO FARMS
1009179	BRITZ/FIVE POINT SYSTEM
1009214	WESTSIDE HARVESTING
1009222	TERRA LINDA FARMS
1009232	SUMNER PECK RANCH
1009258	SAN ANDREAS FARMS
1009281	HAMMONDS RANCH
101000	Bakman Water Company
1010013	HUME LAKE CHRISTIAN CAMPS, INC
101002	CWS - Selma
1010053	SHAVER LAKE HEIGHTS MWC
1110002	Cal-Water Service Co - Hamilton City
1110003	Cal-Water Service Co - Willows
1200541	Phillipsville CSD
1200566	Orleans MWC
1200592	BIG LAGOON CSD
1200715	California Redwood Co - Korbel
1210007	Del Oro WC - Ferndale
1210008	Garberville SD
1210010	Town of Scotia LLC
1210013	Humboldt Bay MWD
1310003	GSWC - CALIPATRIA
1310007	HEBER PUBLIC UTILITY DISTRICT
1400004	Charles Brown Water Company
1400010	Rolling Green Utilities
1400111	Meadow Creek Mutual Water Co.
1410007	Highland Mobile Home Park
150049	Aera Energy-LLC
1503536	Linns Valley School
151000	CWS - Bakersfield
151000	Casa Loma Water Co, Inc.
1510009	Erskine Creek Water Company
151001	Oildale Mutual Water Company
1510023	Lake of the Woods Mutual Water Co.
1510028	Mil Potrero Mutual Water Company
151002	Vaughn Water Company, Inc.
1510032	City of California City
1510033	CWS-Kernville System
1510039	CWS-Southlake Squirrel Valley System
1510042	Mountain Mesa Water Company
1510043	CWS-Onyx System
151004	Lost Hills Utility District
1510049	CWS-Lakeland System
151005	CWS- North Garden
1510056	CWS-Lower Bodfish System
1710002	Golden State Water Co.-Clearlake System
1710003	Highlands Mutual Water Company
1710005	Lucerne Water Co. - Cal Water Service
1800511	LAKE FOREST MUTUAL W.C.
1900803	El Dorado Mutual Water Company
1910004	Golden State Water Co - Artesia
1910006	Southern CA Edison Company - Santa Catalina
1910011	Golden State Water Co - Bell, Bell Garden
1910012	Bellflower Home Gardens Water Company
1910013	Bellflower - Somerset Mutual Water Company
1910020	East Pasadena Water Company
1910021	Liberty Utilities - Compton
1910023	Averydale Mutual Water Company
1910024	Golden State Water Co - Claremont
1910030	Golden State Water Co - Culver City
1910033	California Water Service Co - Dominguez
1910036	California Water Service Co - East Los Angeles
1910039	San Gabriel Valley WC - El Monte
1910046	Suburban Water Systems - Glendora
1910052	California American Water Co - Baldwin Hills
1910059	Suburban Water Systems - La Mirada
1910061	Las Flores Water Company
1910063	Lincoln Avenue Water Company
1910072	Golden State Water Co - Willowbrook
1910077	Golden State Water Co - Florence/Graham
1910084	Maywood Mutual Water Company #1
1910085	Maywood Mutual Water Company #2
1910086	Maywood Mutual Water Company #3
1910091	Montebello Land And Water Company
1910098	Golden State Water Co - Norwalk
1910104	California Water Service Co - Palos Verdes
1910134	California Water Service Co - Hermosa/Redondo
1910139	California American Water Co - San Marino
1910140	Rubio Canon Land And Water Association
1910142	Golden State Water Co - San Dimas
1910155	Golden State Water Co - Southwest
1910157	Sunny Slope Water Company
1910159	Tract 180 Mutual Water Company
1910160	Tract 349 Mutual Water Company
1910161	Liberty Utilities - Lynwood
1910163	Valencia Heights Water Company
1910165	Valley View Mutual Water Company
1910166	Valley Water Company

State Govt	
1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP
1210017	Manila CSD
1910022	California State Polytechnical Univ - Pomona
1910801	Fenner Canyon Youth Conservation Camp
2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD
2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD
2710851	SALINAS VALLEY STATE PRISON
3610114	CLAWA
3710802	LA CIMA FIRE CENTER
4310028	San Jose State University
4410301	CSP - BIG BASIN STATE PARK
4910027	SONOMA STATE UNIVERSITY
5410801	PORTERVILLE DEVELOPMENTAL CENTER

151002	Greenfield County Water District
1510025	Stallion Springs Community Services District
1510027	Desert Lake Community Services District
151003	City of Bakersfield
1510036	Inyokern Community Services District
1510038	Bear Valley Community Services District
1510045	Golden Hills Community Services District
1510051	Lebec County Water District
1510052	North Edwards Water District
161000	Armona Community Services District
161000	City of Avenal
161000	City of Hanford
161000	City of Corcoran
161000	City of Lemoore
161000	Stratford Public Utility District
161000	Home Garden Community Services District
161000	Kettleman City Community Services District
1710001	Clearlake Oaks County Water District
1710004	Lakeport, City Of
1710006	Konocti County Water District
1710007	Kelseyville Co Waterworks District 3
1710009	Upper Lake County Water District
1710010	Lower Lake County Water District
1710012	Cobb Area County Water District
1710013	Callayomi County Water District
1710014	Mt. Konocti Mutual Water Company
1710015	Hidden Valley Lake Community Services District
1805007	Herlong PUD
1810001	City of Susanville
1810002	Westwood CSD
1810003	Lassen CWD #1
1810004	Leavitt Lake CSD
1910001	Alhambra - City, Water Department
1910003	Arcadia - City, Water Division
1910005	Los Angeles CWWD 40 R38 - Lake Los Angeles
1910007	Azusa Light And Water
1910009	Valley County Water District
191001 7	Santa Clarita Water Div. - Div. of Castaic Lake Water Agency
1910019	Cerritos - City, Water Department
1910025	Los Angeles CWWD 40 R39 - Rock Creek
1910026	Compton - City, Water Department
1910027	Los Angeles CWWD 40 R35 - Northeast LA
1910028	Crescenta Valley Water District
1910029	Industry Public Utilities
1910034	Downey - City, Water Department
1910035	Kinnelon Irrigation District
1910038	El Monte - City, Water Department
1910040	El Segundo - City, Water Department
1910042	Pico Rivera - City, Water Department
1910043	Glendale - City, Water Department
1910044	Glendora - City, Water Department
1910047	Hawthorne - City, Water Department
1910049	Huntington Park - City, Water Department
1910050	Commerce - City, Water Department
1910051	Inglewood - City, Water Department
1910054	La Canada Irrigation District
1910060	La Puente Valley County Water District
1910062	La Verne - City, Water Department
1910064	Littlerock Creek Irrigation District
1910065	Long Beach - City, Water Department
1910067	Los Angeles - City, Dept. Of Water & Power
1910070	Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands
1910073	Lomita - City, Water Department
1910075	Los Angeles CWWD 21 - Kagel Canyon
1910079	Lynwood - City, Water Department
1910081	Lynwood Park Mutual Water Company
1910083	Manhattan Beach - City, Water Department
1910090	Monrovia - City, Water Department
1910092	Monterey Park - City, Water Department
1910096	Newhall County Water District - Newhall
1910101	Orchard Dale Water District
1910102	Palmdale Water District
1910103	Palm Ranch Irrigation District
1910105	Paramount - City, Water Department
1910108	Liberty Utilities - Bell Gardens
1910117	Montebello - City, Water Department
1910124	Pasadena - City, Water Department
1910125	Pico Water District
1910126	Pomona - City, Water Department
1910127	Covina - City, Water Department
1910130	Quartz Hill Water District
1910143	San Fernando - City, Water Department
1910144	San Gabriel County Water District
1910146	Santa Monica - City, Water Division
1910148	Sierra Madre - City, Water Department
1910149	Signal Hill - City, Water Department
1910152	South Gate - City, Water Department
1910153	South Montebello Irrigation District
1910154	South Pasadena - City, Water Department
1910156	Beverly Hills - City, Water Department
1910167	Vernon - City, Water Department
1910173	Whittier - City, Water Department
1910179	Burbank - City, Water Department
1910185	Los Angeles CWWD 36 - Val Verde
1910191	Norwalk - City, Water Department
1910194	Rowland Water District
1910203	LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village
1910204	Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey
1910213	Torrance - City, Water Department
1910225	Las Virgenes Municipal Water District
1910234	Walnut Valley Water District
1910239	Lakewood - City, Water Department
1910244	Green Valley County Water District
1910245	Santa Fe Springs - City
1910247	Newhall County Water District - Castaic
1910248	Los Angeles CWWD 37 - Acton
1910250	Newhall County Water District - Pinetree
1910255	Newhall County Water District -Tesoro Del Valle
2000554	MD #33 Fairmead Dist
2000727	MD #36 Eastin Arcola
2010001	CHOWCHILLA CITY WATER DEPT
2010002	CITY OF MADERA
2010006	MADERA CO SAI 3 PARKSDALE
2010008	MADERA CO MD #10A - MADERA RANCHOS
2110001	INVERNESS PUBLIC UTILITY DIST
2110002	MARIN MUNICIPAL WATER DISTRICT
2110003	NORTH MARIN WATER DISTRICT
2110004	STINSON BEACH COUNTY WTR DIST
2110005	BOLINAS COMMUNITY PUD
2110006	NORTH MARIN WD - PT. REYES
2210001	MARIPOSA PUBLIC UTILITY DIST
2210901	MPWD-COULTERVILLE CSA 1
2300514	Elk County Water District
2310001	Fort Bragg, City Of
2310003	Ukiah, City Of
2310004	Willits, City Of
2310005	Willow County Water District
2310006	Millview County Water District
2310008	Redwood Valley County Water District
2310010	Hopland Public Utility District
2310011	Laytonville County Water District
2410001	CITY OF ATWATER
2410002	CITY OF DOS PALOS
2410003	CITY OF GUSTINE
2410004	CITY OF LIVINGSTON
2410005	CITY OF LOS BANOS
2410006	DELHI CWD
2410007	PLANADA CSD
2410009	CITY OF MERCED
2410010	WINTON WATER & SANITARY DIST
2410011	LE GRAND COMM SERVICES DIST
2410012	HILMAR COUNTY WATER DISTRICT
2410018	SANTA NELLA COUNTY WATER DISTRICT
2410700	CASTLE AIRPORT
2500503	California Pines CSD
2510001	City of Alturas
2510002	Cedarville CWD
2610001	Mammoth Lakes
2610002	June Lake PUD - Village
2610003	Bridgeport PUD
2610004	June Lake PUD - Down Canyon
270077	SUNNY MESA WATER SYSTEM
271000	CASTROVILLE COMMUNITY SERVICES DISTRICT
271000	CITY OF GONZALES
271000	CITY OF GREENFIELD
271001	CITY OF SOLEDAD
271001	MARINA COAST WATER DISTRICT
271001	SEASIDE MUNICIPAL WATER SYSTEM
271002	PAJARO COMMUNITY SERVICES DISTRICT
2810002	Calistoga, City Of

1910169	Walnut Park Mutual Water Company
1910174	Suburban Water Systems - Whittier
1910186	California American Water Co - Duarte
1910189	San Gabriel Valley WC - Montebello
1910195	Golden State Water Co - Hollydale
1910200	Suburban Water Systems - Covina Knolls
1910205	Suburban Water Systems - San Jose
1910211	Liberty Utilities- Bellflower/Norwalk
1910212	Golden State Water Co - South Arcadia
1910223	Golden State Water Co - South San Gabriel
1910240	Valencia Water Company
1910241	Mesa Crest Water Company
1910243	California Water Service Co - Leona Valley
2010003	BASS LAKE WATER COMPANY
2010007	HILLVIEW WC-OAKHURST/SIERRA LAKES
2010010	MADERA VALLEY WATER COMPANY
2010012	HILLVIEW WATER CO-RAYMOND
2300708	Ridgewood Water System
2300730	Westport County Water District
2300731	City Of 10,000 Buddhas
2310013	Point Arena Water Works
2410008	MEADOWBROOK WC
2500911	I'SOT Well #3 & #15
2600620	Mountain Meadows MWC
2610005	Lee Vining PUD
270051	NORMCO WATER COMPANY
2700728	San Ardo WD
270120	CAL AM WATER COMPANY - CHUALAR
2701676	San Lucas WD
270188	CAL AM WATER COMPANY - BISHOP
270252	SANTA LUCIA PRESERVE
270258	CANADA WOODS WC
271000	ALCO WATER SERVICE
271000	CAL AM WATER COMPANY - MONTEREY
271000	CAL AM WATER COMPANY - AMBLER PARK
271000	CWSC KING CITY
271001	CWSC SALINAS
271001 2	CWSC SALINAS HILLS
271001	CWSC LAS LOMAS
271001	LITTLE BEAR WATER COMPANY
271001	CWSC OAK HILLS
271002	CAL AM WATER COMPANY - TORO
271002	CAL AM WATER COMPANY - HIDDEN HILLS
271002	TASCO SPRECKELS WATER COMPANY
2800625	St. Helena Hospital
2810001	Howell Mountain Mutual Water Company
2810012	Pacific Union College
2900532	Washington Water District
2900541	Christian Encounters Ministries
2900546	Sierra Friends Center
2900562	Ananda Village
3000519	Hynes Estates Mutual Water Company
3000585	Page Avenue Mutual Water Company
3000618	Liberty Park Water Association
3000825	South Midway City Mutual Water
3000852	Rancho Mission Viejo
3010008	Eastside Water Association
3010022	Golden state WC-W. Orange
3010035	Golden state WC-Placentia
3010047	Golden state WC-Cowan Heights
3010070	Golden state WC-Yorba linda
3010097	Midway City Mutual
3110035	Weimar WC
3110150	CalAM - West Placer
3110150	CALAM - WEST PLACER
3310004	BOX SPRINGS MUTUAL WC
3310017	SOUTH MESA WC
3310026	NUEVO WATER COMPANY
3310033	SANTA ANA RIVER WATER COMPANY
3310082	NORTH PERRIS WATER SYSTEM
3410003	GSWC - Arden Water Service
3410008	Elk Grove Water Service
3410010	CalAM - Suburban
3410012	CalAM - Ibelton
3410013	CalAM - Lincoln Oaks
3410015	GSWC - Cordova
3410016	Orange Vale Water Company
3410017	CalAM - Parkway
3410023	Fruitridge Vista Water Company
3410031	CalAM - Antelope
3410045	CalAM - Arden
350051	MCMAHON ROAD MUTUAL WATER COMPANY
350057	SPRINGWOOD ESTATES MWC
350057	AROMAS HILLS MUTUAL WATER ASSOCIATION
350058	RANCHO SAN JOAQUIN MUTUAL WATER COMPANY
350082	BEST ROAD MUTUAL WATER COMPANY
351000	SUNNYSLOPE COUNTY WATER DISTRICT
351000	AROMAS WATER DISTRICT
351000	MISSION OAKS MOBILE HOME PARK
3610002	Alpine Water Users Association
3610003	Apple Valley Ranchos WC
3610011	Cedar pines Park MWC
3610016	Glen Martin MWC
3610017	Havasu Water Company
3610021	Fallsvale Service Company
3610023	Green Valley MWC
3610028	Marygold MWC
3610031	Muscoy MWC No. 1
3610033	Mt. Baldy HOA
3610041	San Gabriel Valley WC - Fontana
3610043	GSWC - Barstow
3610046	Valley View Park MWC
3610047	GSWC - Wrightwood
3610048	Terrace Water Company
3610051	Valley of Enchantment MWC
3610053	Western Heights Water Company
3610057	Riverside Highland Water Company
3610063	GSWC - Morongo Del Sur
3610082	San Antonio Canyon MSC
3610085	San Antonio Water Company
3610105	GSWC - Apple Valley North
3610107	GSWC - Apple Valley South
3610108	GSWC - Lucerne
3610109	Sheep Creek Water Company
3610117	Devore Water Company
3610118	Apple Valley Ranchos Water - Yermo
3610854	Searles Valley Minerals Operations
3700905	PINE HILLS MUTUAL WATER COMPANY
3700923	LAKE MORENA OAK SHORES MW CO.
3700938	YUIMA MUNICIPAL WATER DISTRICT IDA
3702354	WARNER SPRINGS ESTATES
3710001	CAL-AM WATER CORONADO
3710011	JACUMBA COMMUNITY SD
3710012	RANCHO PAUMA MUTUAL WC
3710013	LAKESIDE WD
3710039	PINE VALLEY MUTUAL WC
3910001	CALIFORNIA WATER SERVICE - STOCKTON
4010002	ATASCADERO MUTUAL WATER CO
4010003	SAN MIGUELITO MWC
4010015	MORRO ROCK MUTUAL WATER CO
4010017	GOLDEN STATE WATER COMPANY - LOS OSOS
4010018	GOLDEN STATE WATER COMPANY - NIPOMO
4010023	GOLDEN STATE WATER COMPANY - EDNA
4010027	NACIMIENTO WATER COMPANY
4010040	GOLDEN STATE WATER COMPANY-CYPRESS RIDGE
4010081	WOODLANDS DEVELOPMENT
4110006	California Water Service - Bear Gulch
4110007	California Water Service - San Carlos
4110008	California Water Service - San Mateo
4110009	California Water Service - South San Francisco
4110012	Cuesta La Honda Guild, Inc.
4110019	O'Connor Tract Co-Operative Water Company
4110020	Palo Alto Park Mutual Water Company
4200560	Sisquoc
4200618	Midland School
4200870	#REF!
4210005	SAN VICENTE WATER COMPANY
4210016	GOLDEN STATE WATER COMPANY - ORCUTT
4210021	GOLDEN STATE WATER COMPANY - TANGLEWOOD
4210022	GOLDEN STATE WATER COMPANY - LAKE MARIE
4210024	LA CUMBRE MUTUAL WATER CO
4210700	AMERICAN WATER OPS & MAINTENANCE - VAFB
4300543	West San Martin Water Works, Inc.
4310001	California Water Service - Los Altos Suburban
4310011	San Jose Water Company
4310013	Stanford University
4310022	Great Oaks Water Company, Inc.
441000	BIG BASIN WATER COMPANY
441000	SLVWD - FELTON WATER SYSTEM
441000	MT. HERMON ASSOCIATION, INC.

2810003	Napa, City Of
2810004	St. Helena, City Of
2810005	American Canyon, City Of
2810007	Town Of Yountville
2910001	City of Grass Valley
2910002	City of Nevada City
2910003	Truckee-Donner PUD - Main
2910004	NID - E. George, Banner Mountain
2910006	NID - Loma Rica
2910014	NID - Lake of Pines
2910023	NID - Lake Wildwood
3010001	Anaheim, City of
3010002	Brea, City of
3010003	Buena Park. City of
3010004	Mesa Water District
3010010	Fullerton, City of
3010017	Laguna Beach County Water District
3010018	La Habra, City of
3010023	Newport Beach. City of
3010027	Orange, City of
3010030	San Juan Capistrano, City of
3010036	San Clemente, City of
3010037	Yorba Linda, City of
3010038	Santa Ana. City of
3010041	Seal Beach, City of
3010046	Tustin, City of
3010053	Huntington Beach, city of
3010055	South Coast WD-Capo Beach
3010062	Garden Grove. Citv of
3010064	Westminster, City of
3010068	East OC-RZ
3010069	Fountain Valley, Cit of
3010071	Joint Regional Water Supply
3010073	Moulton Niguel Water District
3010079	El Toro Water District
3010082	Serrano Water District
3010092	Irvine Ranch Water District
3010093	East OC-WZ
3010094	Trabuco Canyon Water District
3010100	La Palma, City of
3010101	Santa Margarita Water District
30101.20	San Juan Basin Authority
3110001	North Tahoe PUD - Main
3110003	Foresthill PUD
3110004	City of Lincoln
3110005	Placer CWA - Auburn/Bowman
3110006	Placer CWA - Colfax
3110008	City of Roseville
3110009	Meadow Vista CWD
3110010	Tahoe City PUD - Main
3110020	Squaw Valley PSD
3110024	Placer CWA - Alta
3110025	Placer CWA - Foothill
3110026	NID - North Auburn
3110048	Placer CSA - Sheridan
3200510	IVCSD - Crescent Mills
3210001	IVCSD - Greenville
3210003	City of Portola
3210004	Quincy CSD
3210008	East Quincy SD
3210009	Chester PUD
3310001	COACHELLA VWD: COVE COMMUNITY
3310002	BEAUMONT CHERRY VALLEY WD
3310003	BLYTHE - CITY OF
3310005	DESERT WATER AGENCY
3310006	BANNING, CITY OF
3310007	COACHELLA WATER AUTHORITY
3310008	MISSION SPRINGS WD
3310009	EASTERN MUNICIPAL WD
3310012	ELSINORE VALLEY MWD
3310016	HEMET, CITY OF
3310018	HOME GARDENS COUNTY WD
3310019	IDYLLWILD WATER DISTRICT
3310020	INDIO WATER AUTHORITY
3310021	JURUPA COMMUNITY SD
3310022	LAKE HEMET MWD
3310025	NORCO. CITY OF
3310029	PERRIS, CITY OF
3310031	RIVERSIDE, CITY OF
3310032	SAN JACINTO, CITY OF
3310036	WESTERN MWD - MURRIETA DIVISION
3310037	CORONA. CITY OF
3310038	RANCHO CALIFORNIA WATER DISTRICT
3310044	RUBIDOUX COMMUNITY SD
3310047	CABAZON WATER DISTRICT
3310048	COACHELLA VWD: I.D. NO. 8
3310049	WESTERN MWD
3310074	TEMESCAL VALLEY WATER DISTRICT
3310076	WESTERN MWD (ID A - RAINBOW)
3410001	Sacramento Suburban Water District
3410002	SCWA - Arden Park Vista
3410004	Carmichael Water District
3410006	Citrus Heights Water District
3410007	Del Paso Manor Water District
3410009	Fair Oaks Water District
3410011	City of Galt
3410014	Citv Folsom - Main
3410018	Rio Linda Elverta CWD
3410020	City of Sacramento
3410021	San Juan Water District
3410029	SCWA - Laguna / Vineyard
3410030	Citv of Folsom - Ashland
3410033	Florin County Water District
3410704	SCWA - Mather / Sunrise
350000	CSA NO. 31 STONEGATE WS
350050	TRES PINOS CWD
350091	DUNNEVILLE ESTATES CSA #50
351000	CITY OF HOLLISTER
351000	CITY OF SAN JUAN BAUTISTA
3600008	Apple Valley Foothill CWD
3600009	Apple Valley Heights CWD
3600222	Juniper Riviera CWD
3600306	Thunderbird CWD
3610001	City of Adelanto
3610004	West Valley Water District
3610005	lake Arrowhead CSD
3610008	Big Bear City CSD
3610009	Bighorn - Desert View Water Agency
3610012	City of Chino
3610013	City of Loma Linda
3610014	Citv of Colton
3610015	Crestline Village CWD
3610018	Cucamonga Valley Water District
3610022	Big Bear DWP - Fawnskin
3610024	Hesperia Water District
3610025	Joshua Basin Water District
3610026	SBDNO CSA 70 Cedar Glen
3610029	Monte Vista CWD
3610030	Mariana Ranchos CWD
3610032	City of Needles
3610034	Ontario Municipal Utilities Compoanv
3610036	City of Chino Hills
3610037	City of Redlands MUD Water Division
3610038	City of Rialto
3610039	City of San Bernardino
3610044	Big Bear Lake/Moonridge
3610045	LACSD - Rimforest
3610049	Twentynine Palms Water District
3610050	City of Upland
3610052	Victorville Water District
3610055	Yucaipa Valley Water District
3610060	BDYWA - Goat Mountain ID
3610061	DWP - Sugarloaf/Erwin Lake
3610062	Running Springs WD
3610064	East Valley Water District
3610073	Hi Desert Water District
3610093	Arrowhead Villas MSC
3610110	Arrowbear Park CWD
3610112	Helendale Community SD
3610120	Phelan Pinon Hills CSD
3610121	SBDNO CSA 64
3610125	SBNDO CSA 70J
3700909	JULIAN COMMUNITY SERVICES DISTRICT
3700968	San Pasqual Academy
3701408	YUIMA MUNICIPAL WATER DISTRICT
3710002	VALLECITOS WD
3710004	DEL MAR, CITY OF
3710005	CARLSBAD MWD
3710006	ESCONDIDO, CITY OF
3710008	FALLBROOK PUD
3710009	DESCANSO COMMUNITY SERVICES DISTRICT
3710010	HELIX WATER DISTRICT
3710014	Oceanside, City of
3710015	POWAY, CITY OF

441001	FOREST LAKES MUTUAL WATER COMPANY
4700523	Grenada SD
4700549	Lake Siskiyou MWC
4700551	Cooco Lake MWC
4700880	Siskiyou Lake Highlands MWC
4710013	Lake Shastina CSD
4810002	CALIFORNIA WATER SERVICE CO. - DIXON
4900508	CAZADERO WATER COMPANY, INC.
4900545	BRANGER MUTUAL WATER COMPANY. INC.
4900577	RIO LINDO ADVENTIST ACADEMY
4900599	RANDAL'S RANCHETTE MUTUAL WATER COMPANY
4910002	CLOVERDALE, CITY OF
4910003	PENNGROVE WATER COMPANY (PUC)
4910023	CALIFORNIA-AMERICAN LARKFIELD (PUC)
4910024	GEYSERVILLE WATER WORKS (PUC)
4910025	KENWOOD VILLAGE WATER COMPANY (PUC)
5200503	Mineral CWD
5210002	Gerber Las Flores CSD
5210003	Los Molinos CSD
5301002	Lewiston CSD
5301003	Lewiston Park MWC
5310003	Trinity Center MWC
5400504	A & A MHP
5400506	NO KAWEAH MUTUAL WATER CO
5400523	EL MONTE VILLAGE MHP
5400536	KINGS RIVER ESTATES MUTUAL WATER COMPANY
5400542	DUCOR CSD
5400550	SEVILLE WATER CO
540055	Del Oro Traver District
5400556	RIVER RETREAT MUTUAL
5400567	TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC
5400570	CHINOWTH APARTMENTS
5400602	EAGLE'S NEST RESORT
5400631	LINNELL FARM LABOR CENTER
5400647	YOKOHL MUTUAL WATER CO
5400651	BEVERLY GRAND MUTUAL WATER
5400655	CENTRAL MUTUAL WATER CO
5400660	LAKE SUCCESS MOBILE LODGE
5400670	TRIPLE R MUTUAL WATER CO
5400710	BADGER HILL ESTATES
5400718	WILLIAMS MUTUAL WATER CO
5400728	GRIER MUTUAL WATER CO
5400732	PIERPOINT SPRINGS WATER CO.
5400735	RODRIGUEZ LABOR CAMP
5400744	EAST THREE RIVERS MUTUAL
5400754	SOUTH KAWEAH MUTUAL WATER COMPANY
5400769	FOOTHILL APARTMENTS
5400792	WOODVILLE FARM LABOR CENTER
5400805	SOULTS MUTUAL WATER CO
5400816	BEDEL MUTUAL WATER CO
5400819	MOUNTAIN VIEW MHP
5400875	DIXON WATER COMPANY
5400880	THE LAKES ASSOCIATION
5400881	SUNRISE MUTUAL WATER CO.
5400903	TRACT 92 CSD
5400940	SIERRA KING HOMEOWNERS ASSN
5400964	SIERRA VISTA ASSN
5400966	WESTLAKE VILLAGE MHP
5401026	DEER MEADOW MUTUAL
5401038	AKIN WATER CO
5402038	PATTERSON TRACT CSD
5402047	GLEANINGS FOR THE HUNGRY
5403038	SPRINGVILLE WATER CO
5403084	FAIRWAY MUTUAL WATER CO
5403110	SIERRA MUTUAL WATER CO
5403113	SOUTH FORK ESTATES MUTUAL WATER CO
5403144	ALI MUTUAL WATER CO
5403149	RANCHO LOPEZ
5403202	SALLY TRACH WATER SYSTEM
541001	CWS - Visalia
5500040	BLUEBELL VALLEY MWC
5500057	LONG BARN PROPERTY OWNERS
5500242	SIERRA WALDORF SCHOOL
5510004	PINECREST PERMITTEES ASSN
5510006	MI-WUK VILLAGE MUT WTR CO
5510008	LAKE DON PEDRO CSD
5510009	GROVELAND COMMUNITY SERV DIST
5510011	COLD SPRINGS WATER CO
5510016	SIERRA PARK WATER COMPANY, INC.
5510023	SONORA MEADOWS MUTUAL WTR CO
5510024	SONORA WATER COMPANY INC
5510026	PHOENIX LAKE ESTATES CC MWC
5601104	CASITAS MUTUAL WATER COMPANY
5601105	FILLMORE IRRIGATION CO
5601110	MIDDLE ROAD MUTUAL WATER CO
5601116	SAN CAYETANO MUTUAL WATER CO
5601117	SENIOR CANYON MUTUAL WATER CO
5601119	SIETE ROBLES MUTUAL WATER CO
5601120	SISAR MUTUAL WATER CO
5601122	TICO MUTUAL WATER CO
5601125	COMMUNITY MUTUAL WATER CO
5601134	ELKINS RANCH
5601141	SOUTH MOUNTAIN MUTUAL WATER CO
5601144	RANCHO SESPE WORKERS IMP ASSOC
5601201	LIMONEIRA RANCH #1
5601206	LIMONEIRA CO. - MCKEVETT
5601401	KROTONA INSTITUTE
5602103	CYPRESS MUTUAL WATER CO INC
5602104	DEL NORTE MUTUAL WATER CO.
5602108	GARDEN ACRES MUTUAL WATER CO
5602111	NYELAND ACRES MUTUAL WATER CO
5602115	SAVIERS ROAD MUTUAL WATER CO
5602117	STRICKLAND ACRES
5602130	SOLANO VERDE MUTUAL WATER CO
5602132	WATERS ROAD DOMESTIC USERS GROUP
5610001	DEMPSEY ROAD MUTUAL WATER CO
5610006	YERBA BUENA WATER COMPANY
5610008	PLEASANT VALLEY MUTUAL WATER CO
5610010	RIO PLAZA WATER CO INC
5610014	GOLDEN STATE WATER COMPANY - OJAI
5610016	CALIFORNIA WATER SERVICE CO - WESTLAKE
5610021	WARRING WATER SERVICE INC
5610029	VINEYARD AVENUE ACRES MWC
5610035	RIO MANOR MUTUAL WATER CO
5610040	CAL AMERICAN WATER CO
5610043	OAK PARK WATER SERVICE
5610056	VINEYARD AVE ESTATES MWC
5610058	CRESTVIEW MUTUAL WATER CO
5610059	GOLDEN STATE WATER COMPANY - SIMI VALLEY
5610068	CLOVERDALE MUTUAL WATER CO.
5610081	CAL AMERICAN WC - LAS POSAS ESTATES
5700700	Cachevilte Service District
5800924	CAMPTONVILLE COMMUNITY SERV DIST
5810001	Cal-Water Service Co - Marysville

3710016	RAINBOW MUNICIPAL WD	
3710018	RINCON DEL DIABLO MWD (ID-1)	
3710019	RAMONA MUNICIPAL WD	
3710020	SAN DIEGO. CITY OF	
3710021	SAN DIEGUITO WD	
3710023	SANTA FE I.D.	
3710025	SWEETWATER AUTHORITY	
3710026	VALLEY CENTER MWD	
3710027	VISTA IRRIGATION DISTRICT	
3710029	OLIVENHAIN MWD	
3710034	OTAY WATER DISTRICT	
3710036	BORREGO WD	
3710037	PADRE DAM MWD	
3710041	MAJESTIC PINES COMMUNITY SD	
3710044	RINCON DEL DIABLO MWD (ID-A)	
3710047	CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR	
3810011	SFPUC-CITY DISTRIBUTION DIVISION	
3900504	Clements Water Works CSA #43	
3900505	Farmington Water Company (Private)	
3901092	San Joaquin County Water Works #2	
390121	Santos Ranch CSA 35 Los Ranchos	
3901322	Manteca Industrial Park CSA 30	
3910002	SAN JOAQUIN COUNTY - COLONIAL HEIGHTS	
3910003	ESCALON. CITY OF	
3910004	LODI, CITY OF	
3910005	MANTECA, CITY OF	
3910007	RIPON, CITY OF	
3910008	LOCKEFORD COMMUNITY SERV. DIST.	
3910009	SAN JOAQUIN COUNTY - THORNTON	
3910010	SAN JOAQUIN COUNTY - LINCOLN VILLAGE	
3910011	TRACY, CITY OF	
3910012	CITY OF STOCKTON	
3910015	CITY OF LATHROP	
3910019	LINDEN COUNTY WATER DISTRICT	
3910024	SAN JOAQUIN COUNTY - WILKINSON MANOR	
3910027	MOUNTAIN HOUSE COMMUNITY SERVICES DIST.	
4000222	AVILA BEACH COMMUNITY SERVICES DISTRICT	
4000568	SAN SIMEON CSD	
4010001	ARROYO GRANDE WATER DEPARTMENT	
4010004	GROVER BEACH WATER DEPARTMENT	
4010005	OCEANO COMM SERVICES DIST	
4010006	PASO ROBLES BEACH WATER ASSN	
4010007	PASO ROBLES WATER DEPARTMENT	
4010008	PISMO BEACH WATER DEPARTMENT	
4010009	SAN LUIS OBISPO WATER DEPARTMENT	
4010010	SAN MIGUEL COMMUNITY SERVICES DISTRICT	
4010011	MORRO BAY PW DEPT - WATER DIVISION	
4010012	HERITAGE RANCH CSD	
4010014	CAMBRIA COMM SERVICES DIST	
4010016	LOS OSOS COMMUNITY SERVICES DISTRICT	
4010019	TEMPLETON CSD	
4010024	SLO CWWD NO. 23 - SANTA MARGARITA	
4010026	NIPOMO COMM SERVICES DIST	
4010028	SLO CSA NO. 16 - SHANDON	
4010901	SLOCSA #10A - CAYUCOS	
4100582	County Service Area 11	
4110001	Mid-Peninsula Water District	
4110002	City of Brisbane	
4110003	City of Burlingame	
4110005	Guadalupe Valley Municipal Improvement District	
4110010	Montara Water and Sanitary District	
4110011	Coastside County Water District	
4110013	City of Daly City	
4110016	Hillsborough Water Department	
4110017	City of Menlo Park	
4110018	City of Millbrae	
4110021	Estero Municipal Improvement District	
4110022	City of Redwood City	
4110023	City of San Bruno	
4110024	City of East Palo Alto	
4110025	North Coast County Water District	
4110027	Westborough County Water District	
4210001	CARPINTERIA VALLEY WATER DISTRICT	
4210002	LOS ALAMOS COMMUNITY SER DIST	
4210003	GUADALUPE WATER DEPARTMENT	
4210004	GOLETA WATER DISRICT	
4210006	LOMPOC-CITY WATER UTILITY DIV	
4210007	MONTECITO WATER DIST	
4210009	CUYAMA COMMUNITY SERVICES DISTRICT	
4210010	CITY OF SANTA BARBARA WATER DEPARTMENT	
4210011	SANTA MARIA WATER DEPARTMENT	
4210013	SOLVANG WATER DIVISION	
4210017	VANDENBERG VILLAGE COMM. SERV. DIST.	
4210018	BUELLTON WATER DEPARTMENT	
4210019	MISSION HILLS CSD	
4210020	SANTA YNEZ RIVER WATER CONS. DIST. ID#1	
4300542	San Martin County Water District	
4310004	City of Gilroy	
4310005	City of Milpitas	
4310006	City of Morgan Hill	
4310007	City of Mountain View	
4310009	City of Palo Alto	
4310012	City of Santa Clara	
4310014	City of Sunnyvale	
4310018	City of Cupertino	
4310019	City of San Jose - North San Jose/Alviso	
4310020	City of San Jose - Evergreen/Edenvale/Covote	
4310021	Purissima Hills Water District	
440057	DAVENPORT COUNTY SANITATION DISTRICT	
441001	SANTA CRUZ WATER DEPARTMENT	
441001	CITY OF WATSONVILLE	
441001	SCOTTS VALLEY WATER DISTRICT	
441001	SAN LORENZO VALLEY WATER DISTRICT	
441001	SLVWD-LOMPICO	
441001	SOQUEL CREEK WATER DISTRICT	
441001	CENTRAL WATER DISTRICT	
4500015	Shasta CSA - Castella #3	
4500317	Shasta CSA - French Gulch #11	
4510001	City of Anderson	
4510003	Burney WD	
4510005	City of Redding	
4510006	City of Shasta Lake	
4510007	Cottonwood CWD	
4510008	Fall River Valley CSD	
4510011	Centerville CSD	
4510013	Shasta CSD	
4510014	Bella Vista WD	
4510016	Clear Creek CSD - Anderson	
4600018	Sierraville PUD	
4610001	City of Loyalton	
4610002	Downieville PUD	
4700503	Callahan WD	
4700513	Hornbrook CSD	
4700521	Siskiyou Co SA #5/Carrick	
4710001	City of Dorris	
4710002	City of Dunsmuir	
4710003	Town of Fort Jones	
4710004	City of Etna	
4710006	McCloud CSD	
4710007	City of Montague	
4710008	City of Mt. Shasta	
4710009	City of Weed	
4710010	City of Tulelake	
4710011	City of Yreka	
4710012	Happy Camp CSD	
4810001	CITY OF BENICIA	
4810003	CITY OF FAIRFIELD	
4810004	CITY OF RIO VISTA	
4810005	SUISUN-SOLANO WATER AUTHORITY	
4810007	CITY OF VALLEJO	
4810008	CITY OF VACAVILLE	
4810009	CITY OF DIXON	
4810010	SID - GIBSON CANYON	
4810011	SID - ELMIRA	
4810013	RURAL NORTH VACAVILLE WATER DISTRICT	
4810021	CITY OF VALLEJO-LAKES SYSTEM	
4910004	SWEETWATER SPRINGS CWD - GUERNEVILLE	
4910005	HEALDSBURG, CITY OF	
4910006	PETALUMA, CITY OF	
4910009	SANTA ROSA, CITY OF	
4910011	SEBASTOPOL, CITY OF	
4910012	SONOMA, CITY OF	
4910013	VALLEY OF THE MOON WATER DISTRICT	
4910014	ROHNERT PARK, CITY OF	
4910016	COTATI, CITY OF	
4910017	WINDSOR, TOWN OF	
4910019	FORESTVILLE COUNTY WATER DISTRICT	
4910021	BODEGA BAY PUBLIC UTILITY DISTRICT	
4910028	SWEETWATER SPRINGS CWD - MONTE RIO	
5000005	Crows Landing CSD	
5000008	Knights Ferry CSD	
5000010	TID/La Grange	
5010005	CITY OF MODESTO, SALIDA	
5010006	CITY OF WATERFORD	

5010007	HILLSVIEW HOMES	
5010008	HUGHSON, CITY OF	
5010009	KEYES COMMUNITY SERVICES DIST.	
5010010	MODESTO. CITY OF	
5010013	CITY OF NEWMAN-WATER DEPARTMENT	
5010014	OAKDALE, CITY OF	
5010017	PATTERSON, CITY OF	
5010018	RIVERBANK, CITY OF	
5010019	TURLOCK. CITY OF	
5010021	DENAIR COMMUNITY SERVICES DISTRICT	
5010026	WATERFORD - HICKMAN	
5010028	CERES, CITY OF	
5100107	Sutter Co WWD #1 (Robbins)	
5110001	City of Live Oak	
5110002	City of Yuba City	
5110007	Sutter CSD	
5200504	City of Tehama	
5210001	City of Corning	
5210004	City of Red Bluff	
5210005	Rio Alto WD	
5310001	Weaverville CSD	
5310002	Trinity Co WW Dist #1	
5400544	ALLENSWORTH CSD	
5400616	LEMON COVE WATER CO	
5400641	TEVISTON CSD	
5400824	SULTANA CSD	
5400934	PONDEROSA CSD	
5400968	IMPROVEMENT DIST #1	
5401003	EAST OROSI CSD	
5403023	DELFT COLONY WATER	
5403043	YETTEM WATER SYSTEM	
5410001	CUTLER PUD	
5410002	DINUBA, CITY OF	
5410003	EXETER, CITY OF	
5410004	FARMERSVILLE, CITY OF	
5410006	LINDSAY. CITY OF	
5410008	OROSI PUBLIC UTILITY DISTRICT	
541000	Pixley Public Utility District	
5410010	PORTERVILLE, CITY OF	
541001	Springville Public Utility District	
541001	Strathmore Public Utility District	
541001	Tipton Community Services District	
5410015	TULARE. CITY OF	
5410019	IVANHOE PUBLIC UTILITY DIST	
5410020	WOODLAKE, CITY OF	
5410021	EARLIMART PUD	
541002	Richgrove Community Services District	
541002	Woodville Public Utility District	
541002	Poplar Community Services District	
541003	Terra Bella Irrigation District	
5410048	PORTERVILLE-JONES CORNER	
541005	Alpaugh Community Services District	
5510001	TUD - SONORA/JAMESTOWN WATER SYSTEM	
5510003	TUD - TUOLUMNE WATER SYSTEM	
5510005	TWAIN HARTE COMMUNITY SERVICES DISTRICT	
5510012	TUD - UPPER BASIN WATER SYSTEM	
5510013	TUD - COLUMBIA WATER SYSTEM	
5610002	FILLMORE WATER DEPT	
5610003	VENTURA CWWD NO. 17 - BELL CANYON	
5610005	MEINERS OAKS CWD	
5610007	OXNARD WATER DEPT	
5610009	PORT HUENEME WATER DEPT	
5610011	SANTA PAULA WATER SYSTEM	
5610015	VENTURA CWWD NO. 19 - SOMIS	
5610017	VENTURA WATER DEPARTMENT	
5610018	VENTURA CWWD NO. 1 - MOORPARK	
5610019	CAMARILLO WATER DEPT	
5610020	THOUSAND OAKS WATER DEPT	
5610022	VENTURA RIVER WATER DISTRICT	
5610023	VENTURA WWD NO. 8 - SIMI VALLEY	
5610024	CASITAS MUNICIPAL WATER DIST	
5610039	CHANNEL ISLANDS BEACH CSD	
5610046	UNITED WTR CONS DIST	
5610050	CALLEGUAS MUNICIPAL WATER DIST	
5610063	CAMROSA WATER DISTRICT	
5610069	VENTURA CWWD NO. 38 - LAKE SHERWOOD	
5610080	PORT HUENEME WATER AGENCY	
5700571	Madison Service District	
5710001	City of Davis	
5710003	City of West Sacramento	
5710004	Knights Landing Services District	
5710005	City of Winters	
5710006	City of Woodland	
5710007	Esparto CSD	
5805001	Plumas Lake	
5810002	Linda CWD	
5810003	Olivehurst PUD	
5810004	City of Wheatland	
5810006	North Yuba WD	

System Number	System Name	
0800555	Gasquet CSD	CA0800555
0810001	City of Crescent City	CA0810001
1200501	Alderpoint County Water	CA1200501
1200518	Riverside CSD	CA1200518
1200541	Phillipsville CSD	CA1200541
1200553	Weott CSD	CA1200553
0600005	Colusa Co Service Area #2 - Stonyford	CA0600005
1200587	Briceland CSD	CA1200587
0600013	Colusa Co WWD #2 - Princeton	CA0600013
0910007	Lukins Brothers Water Company	CA0910007
1200729	Orleans CSD	CA1200729
0910013	Georgetown Divide PUD	CA0910013
1210001	City of Arcata	CA1210001
1210002	City of Blue Lake	CA1210002
1210004	City of Eureka	CA1210004
1000004	BELMONT WATER CORPORATION	CA1000004
1210007	Del Oro WC - Ferndale	CA1210007
1000005	BIG CREEK COMMUNITY SERV DIST	CA1000005
1210009	Humboldt CSD	CA1210009
1210010	Town of Scotia LLC	CA1210010
1210011	Redway CSD	CA1210011
1210012	City of Rio Dell	CA1210012
1210013	Humboldt Bay MWD	CA1210013
1000016	DORABELLE MUTUAL WATER COMPANY	CA1000016
1210016	McKinleyville CSD	CA1210016
1000018	EASTON ESTATES WATER COMPANY	CA1000018
1210018	City of Trinidad	CA1210018
1210019	Hydesville Co WD	CA1210019
1000019	FCSA #30/EL PORVENIR	CA1000019
1210021	Jacoby Creek CSD	CA1210021
1210022	Resort Imprvmt Dist #1	CA1210022
1210023	Loleta CSD	CA1210023
1210024	Westhaven CSD	CA1210024
1000021	FCSA #05/WILDWOOD ISLAND	CA1000021
2500911	I'SOT Well #3 & #15	CA2500911
2510001	City of Alturas	CA2510001
2510002	Cedarville CWD	CA2510002
4700503	Callahan WD	CA4700503
1000023	FCSA #14/BELMONT MANOR	CA1000023
4700521	Siskiyou Co SA #5/Carrick	CA4700521
4700523	Grenada SD	CA4700523
4700549	Lake Siskiyou MWC	CA4700549
4700551	Copco Lake MWC	CA4700551
4700880	Siskiyou Lake Highlands MWC	CA4700880
4710001	City of Dorris	CA4710001
4710002	City of Dunsmuir	CA4710002

4710003	Town of Fort Jones	CA4710003
4710004	City of Etna	CA4710004
4710006	McCloud CSD	CA4710006
1000039	FCSA #10/CUMORAH KNOLLS	CA1000039
4710008	City of Mt. Shasta	CA4710008
4710009	City of Weed	CA4710009
4710010	City of Tulelake	CA4710010
4710011	City of Yreka	CA4710011
4710012	Happy Camp CSD	CA4710012
1000040	FCWWD #37/MILE HIGH	CA1000040
5301002	Lewiston CSD	CA5301002
5301003	Lewiston Park MWC	CA5301003
5310001	Weaverville CSD	CA5310001
5310002	Trinity Co WW Dist #1	CA5310002
5310003	Trinity Center MWC	CA5310003
1000041	FCWWD #38/SKY HARBOUR	CA1000041
1810001	City of Susanville	CA1810001
1000042	FCWWD #40/SHAVER SPRINGS	CA1000042
1810003	Lassen CWD #1	CA1810003
1000054	LAS DELTAS MUTUAL WATER SYSTEM	CA1000054
1000056	MEADOW LAKES CLUB	CA1000056
1000058	MUSICK CREEK TRACT ASSOCIATION	CA1000058
1000059	MUSICK HEIGHTS MUTUAL	CA1000059
3110005	Placer CWA - Auburn/Bowman	CA3110005
3110006	Placer CWA - Colfax	CA3110006
3110008	City of Roseville	CA3110008
1000060	MUSICK MEADOWS #1	CA1000060
1000061	MUSICK MEADOWS #2	CA1000061
3110020	Squaw Valley PSD	CA3110020
3110024	Placer CWA - Alta	CA3110024
3110025	Placer CWA - Foothill	CA3110025
3110035	Weimar WC	CA3110035
3110048	Placer CSA - Sheridan	CA3110048
1000063	NEW AUBERRY WATER ASSOCIATION	CA1000063
3210001	IVCSD - Greenville	CA3210001
1000069	SHAVER LAKE HEIGHTS PROP ASSN	CA1000069
3210004	Quincy CSD	CA3210004
3210008	East Quincy SD	CA3210008
3210009	Chester PUD	CA3210009
1000071	LAKEVIEW IMPROVEMENT ASSOICATION #1	CA1000071
1000072	SHAVER LAKE POINT #2	CA1000072
4510001	City of Anderson	CA4510001
4510003	Burney WD	CA4510003
4510005	City of Redding	CA4510005
1000075	TRACT 1199 WATER SYSTEM	CA1000075
1000078	FCWWD #42/ALLUVIAL & FANCHER	CA1000078
4510008	Fall River Valley CSD	CA4510008

4510011	Centerville CSD	CA4510011
1000199	ALICE MANOR	CA1000199
4510014	Bella Vista WD	CA4510014
4510016	Clear Creek CSD - Anderson	CA4510016
1000229	GREEN ACRES MOBILE HOME ESTATE	CA1000229
1000238	CAMDEN TRAILER PARK	CA1000238
1000244	SHADY LAKES MOBILE HOME PARK	CA1000244
1710001	Clearlake Oaks County Water District	CA1710001
1710002	Golden State Water Co.-Clearlake System	CA1710002
1710003	Highlands Mutual Water Company	CA1710003
1710004	Lakeport, City Of	CA1710004
1710005	Lucerne Water Co. - Cal Water Service	CA1710005
1710006	Konocti County Water District	CA1710006
1710007	Kelseyville Co Waterworks District 3	CA1710007
1710009	Upper Lake County Water District	CA1710009
1710010	Lower Lake County Water District	CA1710010
1710012	Cobb Area County Water District	CA1710012
1710013	Callayomi County Water District	CA1710013
1710014	Mt. Konocti Mutual Water Company	CA1710014
1710015	Hidden Valley Lake Community Services District	CA1710015
2300514	Elk County Water District	CA2300514
2300708	Ridgewood Water System	CA2300708
2300730	Westport County Water District	CA2300730
2300731	City Of 10,000 Buddhas	CA2300731
2310001	Fort Bragg, City Of	CA2310001
2310003	Ukiah, City Of	CA2310003
2310004	Willits, City Of	CA2310004
2310005	Willow County Water District	CA2310005
2310006	Millview County Water District	CA2310006
2310008	Redwood Valley County Water District	CA2310008
2310010	Hopland Public Utility District	CA2310010
2310011	Laytonville County Water District	CA2310011
2310013	Point Arena Water Works	CA2310013
2800625	St. Helena Hospital	CA2800625
2810001	Howell Mountain Mutual Water Company	CA2810001
2810002	Calistoga, City Of	CA2810002
2810003	Napa, City Of	CA2810003
2810004	St. Helena, City Of	CA2810004
2810005	American Canyon, City Of	CA2810005
2810007	Town Of Yountville	CA2810007
2810012	Pacific Union College	CA2810012
0105008	CASTLEWOOD DOMESTIC WATER SYSTEM	CA0105008
0110001	ALAMEDA COUNTY WATER DISTRICT	CA0110001
0110003	CALIFORNIA WATER SERVICE - LIVERMORE	CA0110003
0110005	EAST BAY MUD	CA0110005
0110006	CITY OF HAYWARD	CA0110006
0110008	CITY OF PLEASANTON	CA0110008

0110009	DUBLIN SAN RAMON SERVICES DISTRICT	CA0110009
0110011	CITY OF LIVERMORE	CA0110011
0110012	SFPUC-TOWN OF SUNOL	CA0110012
0110016	ALAMEDA POINT	CA0110016
0710001	CITY OF ANTIOCH	CA0710001
0710002	GOLDEN STATE WATER COMPANY - BAY POINT	CA0710002
0710003	CONTRA COSTA WATER DISTRICT	CA0710003
0710004	CITY OF BRENTWOOD	CA0710004
0710006	CITY OF MARTINEZ	CA0710006
0710007	DIABLO WATER DISTRICT	CA0710007
0710008	CITY OF PITTSBURG	CA0710008
0710009	TOWN OF DISCOVERY BAY	CA0710009
3810011	SFPUC-CITY DISTRIBUTION DIVISION	CA3810011
3810700	PRESIDIO OF SAN FRANCISCO	CA3810700
3810702	TREASURE ISLAND	CA3810702
4810001	CITY OF BENICIA	CA4810001
4810002	CALIFORNIA WATER SERVICE CO. - DIXON	CA4810002
4810003	CITY OF FAIRFIELD	CA4810003
4810004	CITY OF RIO VISTA	CA4810004
4810005	SUISUN-SOLANO WATER AUTHORITY	CA4810005
4810007	CITY OF VALLEJO	CA4810007
4810008	CITY OF VACAVILLE	CA4810008
4810009	CITY OF DIXON	CA4810009
4810010	SID - GIBSON CANYON	CA4810010
4810011	SID - ELMIRA	CA4810011
4810013	RURAL NORTH VACAVILLE WATER DISTRICT	CA4810013
4810021	CITY OF VALLEJO-LAKES SYSTEM	CA4810021
1000248	DOUBLE L MOBILE RANCH PARK	CA1000248
1000257	MT ARARAT MOBILE HOME PARK	CA1000257
2700773	SUNNY MESA WATER SYSTEM	CA2700773
2701202	CAL AM WATER COMPANY - CHUALAR	CA2701202
2701882	CAL AM WATER COMPANY - BISHOP	CA2701882
1000259	NEW HORIZONS MOBILE/RV PARK	CA1000259
1000260	SANDY CREEK VILLAGE MHP	CA1000260
2710001	ALCO WATER SERVICE	CA2710001
2710004	CAL AM WATER COMPANY - MONTEREY	CA2710004
1000265	MARY LOU MOBILE HOME PARK	CA1000265
2710006	CAL AM WATER COMPANY - AMBLER PARK	CA2710006
2710007	CITY OF GONZALES	CA2710007
1000267	KINGS CANYON MOBILE HOME PARK	CA1000267
2710009	CWSC KING CITY	CA2710009
2710010	CWSC SALINAS	CA2710010
1000277	ELM COURT	CA1000277
2710012	CWSC SALINAS HILLS	CA2710012
2710013	CWSC LAS LOMAS	CA2710013
1000295	KINGS PARK APARTMENTS	CA1000295
2710017	MARINA COAST WATER DISTRICT	CA2710017

2710018	SEASIDE MUNICIPAL WATER SYSTEM	CA2710018
2710019	CWSC OAK HILLS	CA2710019
2710020	PAJARO COMMUNITY SERVICES DISTRICT	CA2710020
1000298	WOODWARD BLUFFS MHP	CA1000298
1000299	THREE PALMS MOBILEHOME PARK	CA1000299
1000324	MANNING GARDENS CARE CENTER INC	CA1000324
1000345	PANOCHE WATER DISTRICT	CA1000345
1000366	SUNNYSIDE CONVALESCENT HOSP	CA1000366
1000369	ZONNEVELD DAIRY - CEDAR	CA1000369
1000377	ST NICHOLAS RANCH & RETREAT	CA1000377
1000378	SUNSET WEST COMMUNITY LLC	CA1000378
1000405	PIEDRA PARK ASSOICATION	CA1000405
1000407	GEORGE COX WATER SYSTEM	CA1000407
1000426	RIVERBEND MOBILE HOME & RV PARK	CA1000426
1000430	COUNTRY VIEW ALZHEIMER CENTER	CA1000430
1000472	PG&E HELMS SUPPORT FACILITY	CA1000472
1000484	FCSA #34/ MILLERTON NEW TOWN	CA1000484
1000550	FCSA #44D/MONTE VERDI	CA1000550
1000554	FCSA #10A/MANSIONETTE ESTATES	CA1000554
1000555	FCSA #44C/RIVERVIEW ESTATES	CA1000555
3510003	SUNNYSLOPE COUNTY WATER DISTRICT	CA3510003
1000570	JUVENILE JUSTICE CAMPUS	CA1000570
1000585	MURRIETA/HERNANDEZ FARMS	CA1000585
1000627	ZONNEVELD DAIRY - CERINI	CA1000627
1009020	FIVE POINTS RANCH	CA1009020
4410002	SLVWD - FELTON WATER SYSTEM	CA4410002
1009023	BRITZ/COLUSA	CA1009023
4410010	SANTA CRUZ WATER DEPARTMENT	CA4410010
4410011	CITY OF WATSONVILLE	CA4410011
4410013	SCOTTS VALLEY WATER DISTRICT	CA4410013
4410014	SAN LORENZO VALLEY WATER DISTRICT	CA4410014
1009051	CANTUA CREEK VINEYARDS, IV, LLC.	CA1009051
1009111	SCE/BIG CREEK POWERHOUSE #1	CA1009111
4410017	SOQUEL CREEK WATER DISTRICT	CA4410017
1009120	RAU DAIRY	CA1009120
1009147	FARMING D	CA1009147
4000222	AVILA BEACH COMMUNITY SERVICES DISTRICT	CA4000222
4000568	SAN SIMEON CSD	CA4000568
1009172	VAQUERO FARMS	CA1009172
4010001	ARROYO GRANDE WATER DEPARTMENT	CA4010001
4010002	ATASCADERO MUTUAL WATER CO	CA4010002
4010003	SAN MIGUELITO MWC	CA4010003
1009179	BRITZ/FIVE POINT SYSTEM	CA1009179
4010005	OCEANO COMM SERVICES DIST.	CA4010005
1009214	WESTSIDE HARVESTING	CA1009214
4010007	PASO ROBLES WATER DEPARTMENT	CA4010007
4010008	PISMO BEACH WATER DEPARTMENT	CA4010008

4010009	SAN LUIS OBISPO WATER DEPARTMENT	CA4010009
4010010	SAN MIGUEL COMMUNITY SERVICES DISTRICT	CA4010010
4010011	MORRO BAY PW DEPT - WATER DIVISION	CA4010011
4010012	HERITAGE RANCH CSD	CA4010012
4010014	CAMBRIA COMM SERVICES DIST	CA4010014
4010015	MORRO ROCK MUTUAL WATER CO	CA4010015
4010016	LOS OSOS COMMUNITY SERVICES DISTRICT	CA4010016
4010017	GOLDEN STATE WATER COMPANY - LOS OSOS	CA4010017
4010018	GOLDEN STATE WATER COMPANY - NIPOMO	CA4010018
4010019	TEMPLETON CSD	CA4010019
4010023	GOLDEN STATE WATER COMPANY - EDNA	CA4010023
4010024	SLO CWWD NO. 23 - SANTA MARGARITA	CA4010024
4010026	NIPOMO COMM SERVICES DIST	CA4010026
1009222	TERRA LINDA FARMS	CA1009222
4010028	SLO CSA NO. 16 - SHANDON	CA4010028
4010040	GOLDEN STATE WATER COMPANY-CYPRESS RIDGE	CA4010040
4010081	WOODLANDS DEVELOPMENT	CA4010081
4010901	SLOCSA #10A - CAYUCOS	CA4010901
1009232	SUMNER PECK RANCH	CA1009232
4210002	LOS ALAMOS COMMUNITY SER DIST	CA4210002
4210003	GUADALUPE WATER DEPARTMENT	CA4210003
4210004	GOLETA WATER DISRICT	CA4210004
4210005	SAN VICENTE WATER COMPANY	CA4210005
4210006	LOMPOC-CITY WATER UTILITY DIV	CA4210006
4210007	MONTECITO WATER DIST	CA4210007
4210009	CUYAMA COMMUNITY SERVICES DISTRICT	CA4210009
4210010	CITY OF SANTA BARBARA WATER DEPARTMENT	CA4210010
4210011	SANTA MARIA WATER DEPARTMENT	CA4210011
4210013	SOLVANG WATER DIVISION	CA4210013
4210016	GOLDEN STATE WATER COMPANY - ORCUTT	CA4210016
4210017	VANDENBERG VILLAGE COMM. SERV. DIST.	CA4210017
4210018	BUELLTON WATER DEPARTMENT	CA4210018
4210019	MISSION HILLS CSD	CA4210019
4210020	SANTA YNEZ RIVER WATER CONS. DIST. ID#1	CA4210020
4210021	GOLDEN STATE WATER COMPANY - TANGLEWOOD	CA4210021
4210022	GOLDEN STATE WATER COMPANY - LAKE MARIE	CA4210022
4210024	LA CUMBRE MUTUAL WATER CO	CA4210024
4210700	AMERICAN WATER OPS & MAINTENANCE - VAFB	CA4210700
1009258	SAN ANDREAS FARMS	CA1009258
1009281	HAMMONDS RANCH	CA1009281
5601110	MIDDLE ROAD MUTUAL WATER CO	CA5601110
5601116	SAN CAYETANO MUTUAL WATER CO	CA5601116
5601117	SENIOR CANYON MUTUAL WATER CO	CA5601117
5601119	SIETE ROBLES MUTUAL WATER CO	CA5601119
5601120	SISAR MUTUAL WATER CO	CA5601120
5601122	TICO MUTUAL WATER CO	CA5601122
5601125	COMMUNITY MUTUAL WATER CO	CA5601125

1010004	COALINGA-CITY	CA1010004
5601141	SOUTH MOUNTAIN MUTUAL WATER CO	CA5601141
1010017	FCWWD #41/SHAVER LAKE	CA1010017
5601201	LIMONEIRA RANCH #1	CA5601201
1010019	KINGSBURG, CITY OF	CA1010019
5601401	KROTONA INSTITUTE	CA5601401
5602103	CYPRESS MUTUAL WATER CO INC	CA5602103
5602104	DEL NORTE MUTUAL WATER CO.	CA5602104
1010049	BIOLA COMMUNITY SERVICES DIST	CA1010049
1010051	FCWWD #18/FRIANT	CA1010051
5602115	SAVIERS ROAD MUTUAL WATER CO	CA5602115
1010052	SIERRA CEDARS CSD	CA1010052
5602130	SOLANO VERDE MUTUAL WATER CO	CA5602130
1010053	SHAVER LAKE HEIGHTS MWC	CA1010053
5602140	SATICOY COUNTRY CLUB-CITY OF VENTURA	CA5602140
1010062	FCWWD #18/MIRA BELLA	CA1010062
1010501	NPS-GRANT GROVE	CA1010501
5610003	VENTURA CWWD NO. 17 - BELL CANYON	CA5610003
5610005	MEINERS OAKS CWD	CA5610005
5610006	YERBA BUENA WATER COMPANY	CA5610006
5610007	OXNARD WATER DEPT	CA5610007
5610008	PLEASANT VALLEY MUTUAL WATER CO	CA5610008
1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP	CA1010800
1100203	Artois CSD	CA1100203
5610011	SANTA PAULA WATER SYSTEM	CA5610011
5610014	GOLDEN STATE WATER COMPANY - OJAI	CA5610014
5610015	VENTURA CWWD NO. 19 - SOMIS	CA5610015
5610016	CALIFORNIA WATER SERVICE CO - WESTLAKE	CA5610016
5610017	VENTURA WATER DEPARTMENT	CA5610017
5610018	VENTURA CWWD NO. 1 - MOORPARK	CA5610018
5610019	CAMARILLO WATER DEPT	CA5610019
5610020	THOUSAND OAKS WATER DEPT	CA5610020
5610021	WARRING WATER SERVICE INC	CA5610021
5610022	VENTURA RIVER WATER DISTRICT	CA5610022
5610023	VENTURA WWD NO. 8 - SIMI VALLEY	CA5610023
5610024	CASITAS MUNICIPAL WATER DIST	CA5610024
1100616	Elk Creek CSD	CA1100616
5610035	RIO MANOR MUTUAL WATER CO	CA5610035
5610039	CHANNEL ISLANDS BEACH CSD	CA5610039
5610040	CAL AMERICAN WATER CO	CA5610040
5610043	OAK PARK WATER SERVICE	CA5610043
5610046	UNITED WTR CONS DIST	CA5610046
5610050	CALLEGUAS MUNICIPAL WATER DIST	CA5610050
5610056	VINEYARD AVE ESTATES MWC	CA5610056
5610058	CRESTVIEW MUTUAL WATER CO	CA5610058
5610059	GOLDEN STATE WATER COMPANY - SIMI VALLEY	CA5610059
5610063	CAMROSA WATER DISTRICT	CA5610063

5610068	CLOVERDALE MUTUAL WATER CO.	CA5610068
5610069	VENTURA CWWD NO. 38 - LAKE SHERWOOD	CA5610069
5610080	PORT HUENEME WATER AGENCY	CA5610080
1100711	Butte City CSD	CA1100711
1110001	City of Orland	CA1110001
1200566	Orleans MWC	CA1200566
1910013	Bellflower - Somerset Mutual Water Company	CA1910013
1910024	Golden State Water Co - Claremont	CA1910024
1910029	Industry Public Utilities	CA1910029
1910035	Kinneloa Irrigation District	CA1910035
1910042	Pico Rivera - City, Water Department	CA1910042
1910044	Glendora - City, Water Department	CA1910044
1910046	Suburban Water Systems - Glendora	CA1910046
1910052	California American Water Co - Baldwin Hills	CA1910052
1910059	Suburban Water Systems - La Mirada	CA1910059
1910064	Littlerock Creek Irrigation District	CA1910064
1910065	Long Beach - City, Water Department	CA1910065
1910073	Lomita - City, Water Department	CA1910073
1910092	Monterey Park - City, Water Department	CA1910092
1910101	Orchard Dale Water District	CA1910101
1910102	Palmdale Water District	CA1910102
1910105	Paramount - City, Water Department	CA1910105
1910125	Pico Water District	CA1910125
1910127	Covina - City, Water Department	CA1910127
1910139	California American Water Co - San Marino	CA1910139
1910142	Golden State Water Co - San Dimas	CA1910142
1910144	San Gabriel County Water District	CA1910144
1910148	Sierra Madre - City, Water Department	CA1910148
1910149	Signal Hill - City, Water Department	CA1910149
1910159	Tract 180 Mutual Water Company	CA1910159
1910160	Tract 349 Mutual Water Company	CA1910160
1910165	Valley View Mutual Water Company	CA1910165
1910169	Walnut Park Mutual Water Company	CA1910169
1910173	Whittier - City, Water Department	CA1910173
1910174	Suburban Water Systems - Whittier	CA1910174
1910179	Burbank - City, Water Department	CA1910179
1910186	California American Water Co - Duarte	CA1910186
1910200	Suburban Water Systems - Covina Knolls	CA1910200
1910205	Suburban Water Systems - San Jose	CA1910205
1910212	Golden State Water Co - South Arcadia	CA1910212
1910223	Golden State Water Co - South San Gabriel	CA1910223
1910239	Lakewood - City, Water Department	CA1910239
1200701	Orick CSD	CA1200701
1200715	California Redwood Co - Korbel	CA1200715
1206004	Palmer Creek CSD	CA1206004
1210006	City of Fortuna	CA1210006
3000852	Rancho Mission Viejo	CA3000852

3010001	Anaheim, City of	CA3010001
3010002	Brea, City of	CA3010002
3010003	Buena Park, City of	CA3010003
3010004	Mesa Water District	CA3010004
1210008	Garberville SD	CA1210008
3010010	Fullerton, City of	CA3010010
3010017	Laguna Beach County Water District	CA3010017
3010018	La Habra, City of	CA3010018
3010022	Golden state WC-W. Orange	CA3010022
3010023	Newport Beach, City of	CA3010023
3010027	Orange, City of	CA3010027
3010030	San Juan Capistrano, City of	CA3010030
3010035	Golden state WC-Placentia	CA3010035
3010036	San Clemente, City of	CA3010036
3010037	Yorba Linda, City of	CA3010037
3010038	Santa Ana, City of	CA3010038
3010041	Seal Beach, City of	CA3010041
3010046	Tustin, City of	CA3010046
3010047	Golden state WC-Cowan Heights	CA3010047
3010053	Huntington Beach, city of	CA3010053
3010055	South Coast WD-Capo Beach	CA3010055
3010062	Garden Grove, City of	CA3010062
3010064	Westminster, City of	CA3010064
3010068	East OC-RZ	CA3010068
3010069	Fountain Valley, Cit of	CA3010069
3010070	Golden state WC-Yorba linda	CA3010070
3010071	Joint Regional Water Supply	CA3010071
3010073	Moulton Niguel Water District	CA3010073
3010079	El Toro Water District	CA3010079
3010082	Serrano Water District	CA3010082
3010092	Irvine Ranch Water District	CA3010092
1210015	Willow Creek CSD	CA1210015
3010094	Trabuco Canyon Water District	CA3010094
1210017	Manila CSD	CA1210017
3010100	La Palma, City of	CA3010100
3010101	Santa Margarita Water District	CA3010101
3010120	San Juan Basin Authority	CA3010120
3710014	Oceanside, City of	CA3710014
3710700	Camp pendleton-North	CA3710700
3710702	Camp Pendleton-South	CA3710702
0910001	El Dorado Irrigation District - Main	CA0910001
0910002	South Tahoe Public Utilities District	CA0910002
0910003	City of Placerville - Main	CA0910003
1210020	Fieldbrook Glendale CSD	CA1210020
1400004	Charles Brown Water Company	CA1400004
2910001	City of Grass Valley	CA2910001
2910002	City of Nevada City	CA2910002

2910003	Truckee-Donner PUD - Main	CA2910003
2910004	NID - E. George, Banner Mountain	CA2910004
2910006	NID - Loma Rica	CA2910006
2910014	NID - Lake of Pines	CA2910014
2910023	NID - Lake Wildwood	CA2910023
3110026	NID - North Auburn	CA3110026
3110150	CalAM - West Placer	CA3110150
3410001	Sacramento Suburban Water District	CA3410001
3410002	SCWA - Arden Park Vista	CA3410002
3410003	GSWC - Arden Water Service	CA3410003
3410004	Carmichael Water District	CA3410004
3410006	Citrus Heights Water District	CA3410006
3410007	Del Paso Manor Water District	CA3410007
3410008	Elk Grove Water Service	CA3410008
3410009	Fair Oaks Water District	CA3410009
3410010	CalAM - Suburban	CA3410010
1410007	Highland Mobile Home Park	CA1410007
3410012	CalAM - Iselton	CA3410012
3410013	CalAM - Lincoln Oaks	CA3410013
3410014	City Folsom - Main	CA3410014
3410015	GSWC - Cordova	CA3410015
3410016	Orange Vale Water Company	CA3410016
3410017	CalAM - Parkway	CA3410017
3410018	Rio Linda Elverta CWD	CA3410018
3410020	City of Sacramento	CA3410020
3410021	San Juan Water District	CA3410021
3410023	Fruitridge Vista Water Company	CA3410023
3410029	SCWA - Laguna / Vineyard	CA3410029
3410030	City of Folsom - Ashland	CA3410030
3410031	CalAM - Antelope	CA3410031
3410033	Florin County Water District	CA3410033
3410045	CalAM - Arden	CA3410045
3410704	SCWA - Mather / Sunrise	CA3410704
5710001	City of Davis	CA5710001
5710003	City of West Sacramento	CA5710003
1805007	Herlong PUD	CA1805007
1810002	Westwood CSD	CA1810002
5710006	City of Woodland	CA5710006
1810004	Leavitt Lake CSD	CA1810004
0210001	LAKE ALPINE WATER COMPANY	CA0210001
0310001	CITY OF JACKSON	CA0310001
0310002	AWA, IONE	CA0310002
0310003	AWA, SUTTER CREEK	CA0310003
0310004	PLYMOUTH, CITY OF	CA0310004
0310005	PINE GROVE COMM SERV DIST	CA0310005
0310012	AWA, Buckhorn	CA0310012
0510001	UNION PUBLIC UTILITY DISTRICT	CA0510001

0510002	CALAVERAS PUD	CA0510002
0510003	ANGELS, CITY OF	CA0510003
0510005	CCWD - WEST POINT	CA0510005
0510006	CCWD - JENNY LIND	CA0510006
0510010	VALLEY SPRINGS PUD	CA0510010
0510016	CCWD - EBBETTS PASS	CA0510016
0510017	CCWD - COPPER COVE	CA0510017
3910001	CALIFORNIA WATER SERVICE - STOCKTON	CA3910001
3910002	SAN JOAQUIN COUNTY - COLONIAL HEIGHTS	CA3910002
3910003	ESCALON, CITY OF	CA3910003
3910004	LODI, CITY OF	CA3910004
3910005	MANTECA, CITY OF	CA3910005
3910007	RIPON, CITY OF	CA3910007
3910008	LOCKEFORD COMMUNITY SERV. DIST.	CA3910008
3910009	SAN JOAQUIN COUNTY - THORNTON	CA3910009
3910010	SAN JOAQUIN COUNTY - LINCOLN VILLAGE	CA3910010
3910011	TRACY, CITY OF	CA3910011
3910012	CITY OF STOCKTON	CA3910012
3910015	CITY OF LATHROP	CA3910015
3910019	LINDEN COUNTY WATER DISTRICT	CA3910019
3910024	SAN JOAQUIN COUNTY - WILKINSON MANOR	CA3910024
3910027	MOUNTAIN HOUSE COMMUNITY SERVICES DIST.	CA3910027
5010005	CITY OF MODESTO, SALIDA	CA5010005
5010006	CITY OF WATERFORD	CA5010006
1910023	Averydale Mutual Water Company	CA1910023
5010008	HUGHSON, CITY OF	CA5010008
5010009	KEYES COMMUNITY SERVICES DIST.	CA5010009
5010010	MODESTO, CITY OF	CA5010010
5010013	CITY OF NEWMAN-WATER DEPARTMENT	CA5010013
5010014	OAKDALE, CITY OF	CA5010014
5010017	PATTERSON, CITY OF	CA5010017
5010018	RIVERBANK, CITY OF	CA5010018
5010019	TURLOCK, CITY OF	CA5010019
5010021	DENAIR COMMUNITY SERVICES DISTRICT	CA5010021
5010026	WATERFORD - HICKMAN	CA5010026
5010028	CERES, CITY OF	CA5010028
1010007	CITY OF FRESNO	CA1010007
2010001	CHOWCHILLA CITY WATER DEPT	CA2010001
2010002	CITY OF MADERA	CA2010002
2010003	BASS LAKE WATER COMPANY	CA2010003
2010006	MADERA CO SA# 3 PARKSDALE	CA2010006
2010007	HILLVIEW WC-OAKHURST/SIERRA LAKES	CA2010007
2010008	MADERA CO MD #10A - MADERA RANCHOS	CA2010008
2010010	MADERA VALLEY WATER COMPANY	CA2010010
2010012	HILLVIEW WATER CO-RAYMOND	CA2010012
2210001	MARIPOSA PUBLIC UTILITY DIST	CA2210001
2210901	MPWD-COULTERVILLE CSA 1	CA2210901

2400167	BALLICO CSD	CA2400167
2400201	VOLTA COMMUNITY SD	CA2400201
2410001	CITY OF ATWATER	CA2410001
2410002	CITY OF DOS PALOS	CA2410002
2410003	CITY OF GUSTINE	CA2410003
2410004	CITY OF LIVINGSTON	CA2410004
2410005	CITY OF LOS BANOS	CA2410005
2410006	DELHI CWD	CA2410006
2410007	PLANADA CSD	CA2410007
2410008	MEADOWBROOK WC	CA2410008
2410009	CITY OF MERCED	CA2410009
2410010	WINTON WATER & SANITARY DIST	CA2410010
2410011	LE GRAND COMM SERVICES DIST	CA2410011
2410012	HILMAR COUNTY WATER DISTRICT	CA2410012
2410018	SANTA NELLA COUNTY WATER DISTRICT	CA2410018
2410700	CASTLE AIRPORT	CA2410700
5500040	BLUEBELL VALLEY MWC	CA5500040
5500057	LONG BARN PROPERTY OWNERS	CA5500057
5510001	TUD - SONORA/JAMESTOWN WATER SYSTEM	CA5510001
5510003	TUD - TUOLUMNE WATER SYSTEM	CA5510003
5510004	PINECREST PERMITTEES ASSN	CA5510004
5510005	TWAIN HARTE COMMUNITY SERVICES DISTRICT	CA5510005
5510006	MI-WUK VILLAGE MUT WTR CO	CA5510006
5510008	LAKE DON PEDRO CSD	CA5510008
5510009	GROVELAND COMMUNITY SERV DIST	CA5510009
5510011	COLD SPRINGS WATER CO	CA5510011
5510012	TUD - UPPER BASIN WATER SYSTEM	CA5510012
5510013	TUD - COLUMBIA WATER SYSTEM	CA5510013
5510016	SIERRA PARK WATER COMPANY, INC.	CA5510016
5510023	SONORA MEADOWS MUTUAL WTR CO	CA5510023
5510024	SONORA WATER COMPANY INC	CA5510024
5510026	PHOENIX LAKE ESTATES CC MWC	CA5510026
1010001	Bakman Water Company	CA1010001
1010003	City of Clovis	CA1010003
1010024	CWS - Selma	CA1010024
1010026	Pinedale County Water District	CA1010026
1010042	Malaga County Water District	CA1010042
1500495	Aera Energy-LLC	CA1500495
1510001	Arvin Community Services District	CA1510001
1510003	CWS - Bakersfield	CA1510003
1510004	Casa Loma Water Co, Inc.	CA1510004
1510005	City of Delano	CA1510005
1510006	East Niles Community Services District	CA1510006
1510011	Buttonwillow County Water District	CA1510011
1510012	Lamont Public Utility District	CA1510012
1510013	City of McFarland	CA1510013
1510015	Oildale Mutual Water Company	CA1510015

1510019	City of Shafter	CA1510019
1510021	City of Wasco	CA1510021
1510022	West Kern Water District	CA1510022
1510024	Greenfield County Water District	CA1510024
1510029	Vaughn Water Company, Inc.	CA1510029
1510031	City of Bakersfield	CA1510031
1510046	Lost Hills Utility District	CA1510046
1510055	CWS- North Garden	CA1510055
1610001	Armona Community Services District	CA1610001
1610002	City of Avenal	CA1610002
1610003	City of Hanford	CA1610003
1610004	City of Corcoran	CA1610004
1610005	City of Lemoore	CA1610005
1610006	Stratford Public Utility District	CA1610006
1610007	Home Garden Community Services District	CA1610007
1610009	Kettleman City Community Services District	CA1610009
1610700	Lemoore Naval Air Station	CA1610700
5400553	Del Oro Traver District	CA5400553
5410009	Pixley Public Utility District	CA5410009
5410011	Springville Public Utility District	CA5410011
5410012	Strathmore Public Utility District	CA5410012
5410014	Tipton Community Services District	CA5410014
5410016	CWS - Visalia	CA5410016
5410024	Richgrove Community Services District	CA5410024
5410025	Woodville Public Utility District	CA5410025
5410026	Poplar Community Services District	CA5410026
5410038	Terra Bella Irrigation District	CA5410038
5410050	Alpaugh Community Services District	CA5410050
1400007	Sierra Highland CSD	CA1400007
1400010	Rolling Green Utilities	CA1400010
1400111	Meadow Creek Mutual Water Co.	CA1400111
1410001	City of Bishop	CA1410001
1410005	Indian Creek CSD	CA1410005
1410006	Big Pine CSD	CA1410006
1910075	Los Angeles CWWD 21 - Kagel Canyon	CA1910075
1410008	Inyo County PWD - Independence	CA1410008
1410009	Inyo County PWD - Line Pine	CA1410009
2610001	Mammoth Lakes	CA2610001
2610002	June Lake PUD - Village	CA2610002
2610003	Bridgeport PUD	CA2610003
1910081	Lynwood Park Mutual Water Company	CA1910081
3600008	Apple Valley Foothill CWD	CA3600008
3600009	Apple Valley Heights CWD	CA3600009
3600222	Juniper Riviera CWD	CA3600222
3600306	Thunderbird CWD	CA3600306
3610001	City of Adelanto	CA3610001
3610002	Alpine Water Users Association	CA3610002

3610003	Apple Valley Ranchos WC	CA3610003
3610004	West Valley Water District	CA3610004
3610005	lake Arrowhead CSD	CA3610005
3610008	Big Bear City CSD	CA3610008
3610009	Bighorn - Desert View Water Agency	CA3610009
3610011	Cedar pines Park MWC	CA3610011
3610012	City of Chino	CA3610012
3610013	City of Loma Linda	CA3610013
3610014	City of Colton	CA3610014
3610015	Crestline Village CWD	CA3610015
3610016	Glen Martin MWC	CA3610016
3610017	Havasu Water Company	CA3610017
3610018	Cucamonga Valley Water District	CA3610018
3610021	Fallsvale Service Company	CA3610021
3610022	Big Bear DWP - Fawnskin	CA3610022
3610023	Green Valley MWC	CA3610023
3610024	Hesperia Water District	CA3610024
3610025	Joshua Basin Water District	CA3610025
1910091	Montebello Land And Water Company	CA1910091
3610028	Marygold MWC	CA3610028
3610029	Monte Vista CWD	CA3610029
3610030	Mariana Ranchos CWD	CA3610030
3610031	Muscoy MWC No. 1	CA3610031
3610032	City of Needles	CA3610032
3610033	Mt. Baldy HOA	CA3610033
3610034	Ontario Municipal Utilties Company	CA3610034
3610036	City of Chino Hills	CA3610036
3610037	City of Redlands MUD Water Division	CA3610037
3610038	City of Rialto	CA3610038
3610039	City of San Bernardino	CA3610039
3610041	San Gabriel Valley WC - Fontana	CA3610041
3610043	GSWC - Barstow	CA3610043
3610044	Big Bear Lake/Moonridge	CA3610044
3610045	LACSD - Rimforest	CA3610045
3610046	Valley View Park MWC	CA3610046
3610047	GSWC - Wrightwood	CA3610047
1910130	Quartz Hill Water District	CA1910130
3610049	Twentynine Palms Water District	CA3610049
3610050	City of Upland	CA3610050
3610051	Valley of Enchantment MWC	CA3610051
3610052	Victorville Water District	CA3610052
3610053	Western Heights Water Company	CA3610053
3610055	Yucaipa Valley Water District	CA3610055
3610057	Riverside Highland Water Company	CA3610057
3610060	BDVWA - Goat Mountain ID	CA3610060
3610061	DWP - Sugarloaf/Erwin Lake	CA3610061
3610062	Running Springs WD	CA3610062

3610063	GSWC - Morongo Del Sur	CA3610063
3610064	East Valley Water District	CA3610064
3610073	Hi Desert Water District	CA3610073
3610082	San Antonio Canyon MSC	CA3610082
3610085	San Antonio Water Company	CA3610085
1910163	Valencia Heights Water Company	CA1910163
3610105	GSWC - Apple Valley North	CA3610105
3610107	GSWC - Apple Valley South	CA3610107
3610108	GSWC - Lucerne	CA3610108
3610109	Sheep Creek Water Company	CA3610109
3610110	Arrowbear Park CWD	CA3610110
3610112	Helendale Community SD	CA3610112
3610114	CLAWA	CA3610114
3610117	Devore Water Company	CA3610117
3610118	Apple Valley Ranchos Water - Yermo	CA3610118
3610120	Phelan Pinon Hills CSD	CA3610120
3610121	SBDNO CSA 64	CA3610121
3610125	SBNDO CSA 70J	CA3610125
3610703	USMC - 29 Palms	CA3610703
3610705	US Army Fort Irwin	CA3610705
3610854	Searles Valley Minerals Operations	CA3610854
1310001	BRAWLEY, CITY OF	CA1310001
1310002	CALEXICO, CITY OF	CA1310002
1310003	GSWC - CALIPATRIA	CA1310003
1310004	EL CENTRO, CITY OF	CA1310004
1310005	HOLTVILLE, CITY OF	CA1310005
1310006	IMPERIAL, CITY OF	CA1310006
1310007	HEBER PUBLIC UTILITY DISTRICT	CA1310007
1310008	WESTMORLAND, CITY OF	CA1310008
1310013	SEELEY CWD	CA1310013
1310700	NAF EL CENTRO	CA1310700
3700905	PINE HILLS MUTUAL WATER COMPANY	CA3700905
3700909	JULIAN COMMUNITY SERVICES DISTRICT	CA3700909
3700923	LAKE MORENA OAK SHORES MW CO.	CA3700923
3700938	YUIMA MUNICIPAL WATER DISTRICT IDA	CA3700938
3701408	YUIMA MUNICIPAL WATER DISTRICT	CA3701408
3702354	WARNER SPRINGS ESTATES	CA3702354
3710001	CAL-AM WATER CORONADO	CA3710001
3710002	VALLECITOS WD	CA3710002
3710004	DEL MAR, CITY OF	CA3710004
3710005	CARLSBAD MWD	CA3710005
3710006	ESCONDIDO, CITY OF	CA3710006
3710008	FALLBROOK PUD	CA3710008
3710009	DESCANSO COMMUNITY SERVICES DISTRICT	CA3710009
3710010	HELIX WATER DISTRICT	CA3710010
3710011	JACUMBA COMMUNITY SD	CA3710011
3710012	RANCHO PAUMA MUTUAL WC	CA3710012

3710013	LAKESIDE WD	CA3710013
3710015	POWAY, CITY OF	CA3710015
3710016	RAINBOW MUNICIPAL WD	CA3710016
3710018	RINCON DEL DIABLO MWD (ID-1)	CA3710018
3710019	RAMONA MUNICIPAL WD	CA3710019
3710020	SAN DIEGO, CITY OF	CA3710020
3710021	SAN DIEGUITO WD	CA3710021
3710023	SANTA FE I.D.	CA3710023
3710025	SWEETWATER AUTHORITY	CA3710025
3710026	VALLEY CENTER MWD	CA3710026
3710027	VISTA IRRIGATION DISTRICT	CA3710027
3710029	OLIVENHAIN MWD	CA3710029
3710034	OTAY WATER DISTRICT	CA3710034
3710036	BORREGO WD	CA3710036
3710037	PADRE DAM MWD	CA3710037
3710039	PINE VALLEY MUTUAL WC	CA3710039
3710041	MAJESTIC PINES COMMUNITY SD	CA3710041
3710044	RINCON DEL DIABLO MWD (ID-A)	CA3710044
3710047	CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR	CA3710047
3710707	USN SAN CLEMENTE ISLAND	CA3710707
3710750	NAS NORTH ISLAND & NAB CORONADO	CA3710750
3710802	LA CIMA FIRE CENTER	CA3710802
1900803	El Dorado Mutual Water Company	CA1900803
1910004	Golden State Water Co - Artesia	CA1910004
1910009	Valley County Water District	CA1910009
1910011	Golden State Water Co - Bell, Bell Garden	CA1910011
1910028	Crescenta Valley Water District	CA1910028
1910030	Golden State Water Co - Culver City	CA1910030
1910040	El Segundo - City, Water Department	CA1910040
1910043	Glendale - City, Water Department	CA1910043
1910051	Inglewood - City, Water Department	CA1910051
1910062	La Verne - City, Water Department	CA1910062
1910067	Los Angeles - City, Dept. Of Water & Power	CA1910067
1910072	Golden State Water Co - Willowbrook	CA1910072
1910077	Golden State Water Co - Florence/Graham	CA1910077
1910096	Newhall County Water District - Newhall	CA1910096
1910098	Golden State Water Co - Norwalk	CA1910098
1910108	Liberty Utilities - Bell Gardens	CA1910108
1910124	Pasadena - City, Water Department	CA1910124
1910126	Pomona - City, Water Department	CA1910126
1910157	Sunny Slope Water Company	CA1910157
1910166	Valley Water Company	CA1910166
1910167	Vernon - City, Water Department	CA1910167
1910191	Norwalk - City, Water Department	CA1910191
1910195	Golden State Water Co - Hollydale	CA1910195
1910240	Valencia Water Company	CA1910240
1910244	Green Valley County Water District	CA1910244

1910247	Newhall County Water District - Castaic	CA1910247
1910250	Newhall County Water District - Pinetree	CA1910250
1910255	Newhall County Water District -Tesoro Del Valle	CA1910255
1910801	Fenner Canyon Youth Conservation Camp	CA1910801
1910001	Alhambra - City, Water Department	CA1910001
1910005	Los Angeles CWWD 40 R38 - Lake Los Angeles	CA1910005
1910006	Southern CA Edison Company - Santa Catalina	CA1910006
1910007	Azusa Light And Water	CA1910007
1910012	Bellflower Home Gardens Water Company	CA1910012
1910019	Cerritos - City, Water Department	CA1910019
2500503	California Pines CSD	CA2500503
1910025	Los Angeles CWWD 40 R39 - Rock Creek	CA1910025
1910027	Los Angeles CWWD 40 R35 - Northeast LA	CA1910027
1910034	Downey - City, Water Department	CA1910034
1910038	El Monte - City, Water Department	CA1910038
1910054	La Canada Irrigation District	CA1910054
1910060	La Puente Valley County Water District	CA1910060
1910061	Las Flores Water Company	CA1910061
1910063	Lincoln Avenue Water Company	CA1910063
1910070	Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands	CA1910070
2600620	Mountain Meadows MWC	CA2600620
2610004	June Lake PUD - Down Canyon	CA2610004
1910083	Manhattan Beach - City, Water Department	CA1910083
1910084	Maywood Mutual Water Company #1	CA1910084
1910085	Maywood Mutual Water Company #2	CA1910085
1910086	Maywood Mutual Water Company #3	CA1910086
2610005	Lee Vining PUD	CA2610005
1910103	Palm Ranch Irrigation District	CA1910103
2700511	NORMCO WATER COMPANY	CA2700511
1910140	Rubio Canon Land And Water Association	CA1910140
1910143	San Fernando - City, Water Department	CA1910143
1910146	Santa Monica - City, Water Division	CA1910146
1910154	South Pasadena - City, Water Department	CA1910154
1910155	Golden State Water Co - Southwest	CA1910155
2701676	San Lucas WD	CA2701676
1910185	Los Angeles CWWD 36 - Val Verde	CA1910185
1910203	LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village	CA1910203
1910204	Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey	CA1910204
1910234	Walnut Valley Water District	CA1910234
1910241	Mesa Crest Water Company	CA1910241
1910248	Los Angeles CWWD 37 - Acton	CA1910248
4100582	County Service Area 11	CA4100582
4110001	Mid-Peninsula Water District	CA4110001
4110002	City of Brisbane	CA4110002

4110003	City of Burlingame	CA4110003
4110005	Guadalupe Valley Municipal Improvement District	CA4110005
4110006	California Water Service - Bear Gulch	CA4110006
4110007	California Water Service - San Carlos	CA4110007
4110008	California Water Service - San Mateo	CA4110008
4110009	California Water Service - South San Francisco	CA4110009
2702521	SANTA LUCIA PRESERVE	CA2702521
4110011	Coastside County Water District	CA4110011
4110012	Cuesta La Honda Guild, Inc.	CA4110012
4110013	City of Daly City	CA4110013
4110016	Hillsborough Water Department	CA4110016
4110017	City of Menlo Park	CA4110017
4110018	City of Millbrae	CA4110018
2702588	CANADA WOODS WC	CA2702588
2710005	CASTROVILLE COMMUNITY SERVICES DISTRICT	CA2710005
2710008	CITY OF GREENFIELD	CA2710008
4110022	City of Redwood City	CA4110022
4110023	City of San Bruno	CA4110023
4110024	City of East Palo Alto	CA4110024
2710011	CITY OF SOLEDAD	CA2710011
2710016	LITTLE BEAR WATER COMPANY	CA2710016
2710021	CAL AM WATER COMPANY - TORO	CA2710021
2710022	CAL AM WATER COMPANY - HIDDEN HILLS	CA2710022
2710023	TASCO SPRECKELS WATER COMPANY	CA2710023
4310001	California Water Service - Los Altos Suburban	CA4310001
4310004	City of Gilroy	CA4310004
2710702	FORT HUNTER LIGGETT	CA2710702
4310006	City of Morgan Hill	CA4310006
4310007	City of Mountain View	CA4310007
4310009	City of Palo Alto	CA4310009
4310011	San Jose Water Company	CA4310011
4310012	City of Santa Clara	CA4310012
4310013	Stanford University	CA4310013
4310014	City of Sunnyvale	CA4310014
4310018	City of Cupertino	CA4310018
4310019	City of San Jose - North San Jose/Alviso	CA4310019
4310020	City of San Jose - Evergreen/Edenvale/Coyote	CA4310020
2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD	CA2710705
4310022	Great Oaks Water Company, Inc.	CA4310022
2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD	CA2710850
2110001	INVERNESS PUBLIC UTILITY DIST	CA2110001
2110002	MARIN MUNICIPAL WATER DISTRICT	CA2110002
2110003	NORTH MARIN WATER DISTRICT	CA2110003
2110004	STINSON BEACH COUNTY WTR DIST	CA2110004
2110005	BOLINAS COMMUNITY PUD	CA2110005
2110006	NORTH MARIN WD - PT. REYES	CA2110006
4900508	CAZADERO WATER COMPANY, INC.	CA4900508

4900545	BRANGER MUTUAL WATER COMPANY, INC.	CA4900545
4900577	RIO LINDO ADVENTIST ACADEMY	CA4900577
2710851	SALINAS VALLEY STATE PRISON	CA2710851
4910002	CLOVERDALE, CITY OF	CA4910002
4910003	PENNGROVE WATER COMPANY (PUC)	CA4910003
4910004	SWEETWATER SPRINGS CWD - GUERNEVILLE	CA4910004
4910005	HEALDSBURG, CITY OF	CA4910005
4910006	PETALUMA, CITY OF	CA4910006
4910009	SANTA ROSA, CITY OF	CA4910009
4910011	SEBASTOPOL, CITY OF	CA4910011
4910012	SONOMA, CITY OF	CA4910012
4910013	VALLEY OF THE MOON WATER DISTRICT	CA4910013
4910014	ROHNERT PARK, CITY OF	CA4910014
4910016	COTATI, CITY OF	CA4910016
4910017	WINDSOR, TOWN OF	CA4910017
4910019	FORESTVILLE COUNTY WATER DISTRICT	CA4910019
4910021	BODEGA BAY PUBLIC UTILITY DISTRICT	CA4910021
4910023	CALIFORNIA-AMERICAN LARKFIELD (PUC)	CA4910023
4910024	GEYSERVILLE WATER WORKS (PUC)	CA4910024
4910025	KENWOOD VILLAGE WATER COMPANY (PUC)	CA4910025
4910027	SONOMA STATE UNIVERSITY	CA4910027
4910028	SWEETWATER SPRINGS CWD - MONTE RIO	CA4910028
2900532	Washington Water District	CA2900532
1503270	Lake Isabella Community Services Dist.	CA1503270
1503536	Linns Valley School	CA1503536
1510002	Boron Community Services District	CA1510002
1510007	Frazier Park Public Utilities District	CA1510007
1510009	Erskine Creek Water Company	CA1510009
1510014	Mojave Public Utilities District	CA1510014
1510016	Rand Communities Water District	CA1510016
1510017	Indian Wells Valley Water District	CA1510017
1510018	Rosamond Community Services District	CA1510018
1510020	City of Tehachapi	CA1510020
1510023	Lake of the Woods Mutual Water Co.	CA1510023
1510025	Stallion Springs Community Services District	CA1510025
1510027	Desert Lake Community Services District	CA1510027
1510028	Mil Potrero Mutual Water Company	CA1510028
1510032	City of California City	CA1510032
1510033	CWS-Kernville System	CA1510033
1510036	Inyokern Community Services District	CA1510036
1510038	Bear Valley Community Services District	CA1510038
1510039	CWS-Southlake Squirrel Valley System	CA1510039
1510042	Mountain Mesa Water Company	CA1510042
1510043	CWS-Onyx System	CA1510043
1510045	Golden Hills Community Services District	CA1510045
1510049	CWS-Lakeland System	CA1510049
1510051	Lebec County Water District	CA1510051

1510052	North Edwards Water District	CA1510052
1510056	CWS-Lower Bodfish System	CA1510056
1510701	Edwards AFB - Main Base	CA1510701
1510703	China Lake Naval Air Weapons Station	CA1510703
1310011	COACHELLA VWD: I.D. NO. 11	CA1310011
3310001	COACHELLA VWD: COVE COMMUNITY	CA3310001
3310002	BEAUMONT CHERRY VALLEY WD	CA3310002
3310003	BLYTHE - CITY OF	CA3310003
3310004	BOX SPRINGS MUTUAL WC	CA3310004
3310005	DESERT WATER AGENCY	CA3310005
3310006	BANNING, CITY OF	CA3310006
3310007	COACHELLA WATER AUTHORITY	CA3310007
3310008	MISSION SPRINGS WD	CA3310008
3310009	EASTERN MUNICIPAL WD	CA3310009
3310012	ELSINORE VALLEY MWD	CA3310012
3310016	HEMET, CITY OF	CA3310016
3310017	SOUTH MESA WC	CA3310017
3310018	HOME GARDENS COUNTY WD	CA3310018
3310019	IDYLLWILD WATER DISTRICT	CA3310019
3310020	INDIO WATER AUTHORITY	CA3310020
3310021	JURUPA COMMUNITY SD	CA3310021
3310022	LAKE HEMET MWD	CA3310022
3310025	NORCO, CITY OF	CA3310025
3310026	NUEVO WATER COMPANY	CA3310026
3310029	PERRIS, CITY OF	CA3310029
3310031	RIVERSIDE, CITY OF	CA3310031
3310032	SAN JACINTO, CITY OF	CA3310032
3310033	SANTA ANA RIVER WATER COMPANY	CA3310033
3310036	WESTERN MWD - MURRIETA DIVISION	CA3310036
3310037	CORONA, CITY OF	CA3310037
3310038	RANCHO CALIFORNIA WATER DISTRICT	CA3310038
3310044	RUBIDOUX COMMUNITY SD	CA3310044
3310047	CABAZON WATER DISTRICT	CA3310047
3310048	COACHELLA VWD: I.D. NO. 8	CA3310048
3310049	WESTERN MWD	CA3310049
3310074	TEMESCAL VALLEY WATER DISTRICT	CA3310074
3310076	WESTERN MWD (ID A - RAINBOW)	CA3310076
3310082	NORTH PERRIS WATER SYSTEM	CA3310082
0410001	City of Biggs	CA0410001
0410002	Cal-Water Service Co- Chico	CA0410002
0410003	Durham Irrigation District	CA0410003
0410004	City of Gridley	CA0410004
0410005	Cal-Water Service Co - Oroville	CA0410005
0410006	SFWP - Miners Ranch	CA0410006
0410007	Paradise Irrigation District	CA0410007
0410008	Thermalito Water & Sewer District	CA0410008
0410009	Del Oro Water Co - Magalia	CA0410009

0410011	Del Oro Water Co - Paradise Pines	CA0410011
0410012	SFWP - Bangor	CA0410012
0410018	Del Oro Water Co - Stirling Bluffs	CA0410018
2900541	Christian Encounters Ministries	CA2900541
0600008	Colusa Co WWD #1 - Grimes	CA0600008
2900546	Sierra Friends Center	CA2900546
0610001	Arbuckle PUD	CA0610001
0610002	City of Colusa	CA0610002
0610003	Maxwell PUD	CA0610003
0610004	City of Williams	CA0610004
3000519	Hynes Estates Mutual Water Company	CA3000519
3000585	Page Avenue Mutual Water Company	CA3000585
3000618	Liberty Park Water Association	CA3000618
3000825	South Midway City Mutual Water	CA3000825
1110002	Cal-Water Service Co - Hamilton City	CA1110002
1110003	Cal-Water Service Co - Willows	CA1110003
5100107	Sutter Co WWD #1 (Robbins)	CA5100107
5110001	City of Live Oak	CA5110001
5110002	City of Yuba City	CA5110002
5110007	Sutter CSD	CA5110007
5200503	Mineral CWD	CA5200503
5200504	City of Tehama	CA5200504
5210001	City of Corning	CA5210001
5210002	Gerber Las Flores CSD	CA5210002
5210003	Los Molinos CSD	CA5210003
5210004	City of Red Bluff	CA5210004
5210005	Rio Alto WD	CA5210005
5210503	Lassen VNP - Headquarters	CA5210503
5805001	Plumas Lake	CA5805001
5810001	Cal-Water Service Co - Marysville	CA5810001
5810002	Linda CWD	CA5810002
5810003	Olivehurst PUD	CA5810003
5810004	City of Wheatland	CA5810004
5810006	North Yuba WD	CA5810006
5810700	Beale Air Force Base	CA5810700
1910003	Arcadia - City, Water Division	CA1910003
1910017	Santa Clarita Water Div. - Div. of Castaic Lake Water Agency	CA1910017
1910020	East Pasadena Water Company	CA1910020
1910021	Liberty Utilities - Compton	CA1910021
1910022	California State Polytechnical Univ - Pomona	CA1910022
1910026	Compton - City, Water Department	CA1910026
1910033	California Water Service Co - Dominguez	CA1910033
1910036	California Water Service Co - East Los Angeles	CA1910036
1910039	San Gabriel Valley WC - El Monte	CA1910039
1910047	Hawthorne - City, Water Department	CA1910047
1910049	Huntington Park - City, Water Department	CA1910049

1910050	Commerce - City, Water Department	CA1910050
1910079	Lynwood - City, Water Department	CA1910079
1910090	Monrovia - City, Water Department	CA1910090
1910104	California Water Service Co - Palos Verdes	CA1910104
1910117	Montebello - City, Water Department	CA1910117
1910134	California Water Service Co - Hermosa/Redondo	CA1910134
1910152	South Gate - City, Water Department	CA1910152
1910153	South Montebello Irrigation District	CA1910153
1910156	Beverly Hills - City, Water Department	CA1910156
1910161	Liberty Utilites - Lynwood	CA1910161
1910189	San Gabriel Valley WC - Montebello	CA1910189
1910194	Rowland Water District	CA1910194
1910211	Liberty Utilities- Bellflower/Norwalk	CA1910211
1910213	Torrance - City, Water Department	CA1910213
1910225	Las Virgenes Municipal Water District	CA1910225
1910243	California Water Service Co - Leona Valley	CA1910243
1910245	Santa Fe Springs - City	CA1910245
1000001	ALDER SPRINGS	CA1000001
3010008	Eastside Water Association	CA3010008
3010093	East OC-WZ	CA3010093
3010097	Midway City Mutual	CA3010097
3110001	North Tahoe PUD - Main	CA3110001
3110003	Foresthill PUD	CA3110003
3110004	City of Lincoln	CA3110004
3110009	Meadow Vista CWD	CA3110009
3110010	Tahoe City PUD - Main	CA3110010
3200510	IVCSD - Crescent Mills	CA3200510
3210003	City of Portola	CA3210003
3410011	City of Galt	CA3410011
1000053	LANARE COMMUNITY SERVICES DIST	CA1000053
3500006	CSA NO. 31 STONEGATE WS	CA3500006
3500509	TRES PINOS CWD	CA3500509
1000057	DEL ORO WATER CO - METROPOLITAN DISTRICT	CA1000057
3500510	MCMAHON ROAD MUTUAL WATER COMPANY	CA3500510
3500575	SPRINGWOOD ESTATES MWC	CA3500575
3500576	AROMAS HILLS MUTUAL WATER ASSOCIATION	CA3500576
3500581	RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	CA3500581
3500823	BEST ROAD MUTUAL WATER COMPANY	CA3500823
3500910	DUNNEVILLE ESTATES CSA #50	CA3500910
3510001	CITY OF HOLLISTER	CA3510001
3510002	CITY OF SAN JUAN BAUTISTA	CA3510002
3510004	AROMAS WATER DISTRICT	CA3510004
3510006	MISSION OAKS MOBILE HOME PARK	CA3510006
1000186	HELM SCHOOL	CA1000186
3610026	SBDNO CSA 70 Cedar Glen	CA3610026
1000200	RUBYS VALLEY CARE HOME	CA1000200
1000213	HARRIS FARMS/HORSE BARN	CA1000213

3610048	Terrace Water Company	CA3610048
3610093	Arrowhead Villas MSC	CA3610093
3700968	San Pasqual Academy	CA3700968
1000247	SHERWOOD FOREST MHP	CA1000247
3900504	Clements Water Works CSA #43	CA3900504
4000650	MESA DUNES MOBILE HOME ESTATES	CA4000650
4010004	GROVER BEACH WATER DEPARTMENT	CA4010004
4010006	PASO ROBLES BEACH WATER ASSN	CA4010006
4010027	NACIMIENTO WATER COMPANY	CA4010027
4110010	Montara Water and Sanitary District	CA4110010
4110019	O'Connor Tract Co-Operative Water Company	CA4110019
4110020	Palo Alto Park Mutual Water Company	CA4110020
4110021	Estero Municipal Improvement District	CA4110021
4110025	North Coast County Water District	CA4110025
4110027	Westborough County Water District	CA4110027
4210001	CARPINTERIA VALLEY WATER DISTRICT	CA4210001
1000359	FCSA #32/CANTUA CREEK	CA1000359
4300542	San Martin County Water District	CA4300542
4300543	West San Martin Water Works, Inc.	CA4300543
4300997	Nasa Ames Research Center	CA4300997
4310005	City of Milpitas	CA4310005
4310021	Purissima Hills Water District	CA4310021
4310028	San Jose State University	CA4310028
4400571	DAVENPORT COUNTY SANITATION DISTRICT	CA4400571
4410001	BIG BASIN WATER COMPANY	CA4410001
1000445	LINDA VISTA FARMS	CA1000445
1000471	FCSA #39 A&B	CA1000471
4410008	MT. HERMON ASSOCIATION, INC.	CA4410008
4410015	SLVWD-LOMPICO	CA4410015
1000546	FCSA #49/ FIVE POINTS	CA1000546
4410016	FOREST LAKES MUTUAL WATER COMPANY	CA4410016
1000551	FCSA #43/RAISIN CITY	CA1000551
4410018	CENTRAL WATER DISTRICT	CA4410018
4410301	CSP - BIG BASIN STATE PARK	CA4410301
4500015	Shasta CSA - Castella #3	CA4500015
4500317	Shasta CSA - French Gulch #11	CA4500317
4510006	City of Shasta Lake	CA4510006
1009006	PAPPAS & CO (COALINGA)	CA1009006
4510007	Cottonwood CWD	CA4510007
4510013	Shasta CSD	CA4510013
1009027	HARRIS FARMS HEADQUARTERS	CA1009027
1009028	HARRIS FARMS SOUTH #101-144	CA1009028
1009039	PAPPAS & CO (MENDOTA)	CA1009039
4600018	Sierraville PUD	CA4600018
1009078	HARRIS FEEDING COMPANY	CA1009078
4610001	City of Loyalton	CA4610001
4610002	Downieville PUD	CA4610002

4700513	Hornbrook CSD	CA4700513
4710007	City of Montague	CA4710007
4710013	Lake Shastina CSD	CA4710013
4810701	TRAVIS AIR FORCE BASE - DISTRIBUTION	CA4810701
4900599	RANDAL'S RANCHETTE MUTUAL WATER COMPANY	CA4900599
4910701	U.S. COAST GUARD TRAINING CENTER	CA4910701
5010007	HILLSVIEW HOMES	CA5010007
5601104	CASITAS MUTUAL WATER COMPANY	CA5601104
5601105	FILLMORE IRRIGATION CO	CA5601105
1010005	FIREBAUGH CITY	CA1010005
1010006	CITY OF FOWLER	CA1010006
1010013	HUME LAKE CHRISTIAN CAMPS, INC	CA1010013
5601134	ELKINS RANCH	CA5601134
1010018	KERMAN, CITY OF	CA1010018
5601144	RANCHO SESPE WORKERS IMP ASSOC	CA5601144
1010020	LATON COMMUNITY SERVICES DISTRICT	CA1010020
1010021	MENDOTA, CITY OF	CA1010021
1010023	CITY OF ORANGE COVE	CA1010023
1010025	CITY OF PARLIER	CA1010025
1010027	REEDLEY, CITY OF	CA1010027
1010028	RIVERDALE PUBLIC UTILITY DISTRICT	CA1010028
1010029	CITY OF SANGER	CA1010029
1010030	TRANQUILLITY IRRIGATION DISTRICT	CA1010030
1010034	SAN JOAQUIN, CITY OF	CA1010034
1010035	DEL REY COMMUNITY SERV DIST	CA1010035
1010039	CARUTHERS COMM SERV DIST	CA1010039
1010044	HURON, CITY OF	CA1010044
5601206	LIMONEIRA CO. - MCKEVETT	CA5601206
5602108	GARDEN ACRES MUTUAL WATER CO	CA5602108
5602111	NYELAND ACRES MUTUAL WATER CO	CA5602111
5602117	STRICKLAND ACRES	CA5602117
1010055	FCSA #47/QUAIL LAKE ESTATES	CA1010055
5602132	WATERS ROAD DOMESTIC USERS GROUP	CA5602132
5610001	DEMPSEY ROAD MUTUAL WATER CO	CA5610001
5610002	FILLMORE WATER DEPT	CA5610002
5400504	A & A MHP	CA5400504
5400506	NO KAWEAH MUTUAL WATER CO	CA5400506
5400523	EL MONTE VILLAGE MHP	CA5400523
5400529	SHADY GROVE MHP	CA5400529
5400536	KINGS RIVER ESTATES MUTUAL WATER COMPANY	CA5400536
5400542	DUCOR CSD	CA5400542
5400544	ALLENSWORTH CSD	CA5400544
5400550	SEVILLE WATER CO	CA5400550
5400556	RIVER RETREAT MUTUAL	CA5400556
5400567	TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC	CA5400567
5400570	CHINOWTH APARTMENTS	CA5400570
5400600	GOLDEN KEY APARTMENTS	CA5400600

5400602	EAGLE'S NEST RESORT	CA5400602
5400604	MOUNTAIN VIEW DUPLEXES	CA5400604
5400616	LEMON COVE WATER CO	CA5400616
5400631	LINNELL FARM LABOR CENTER	CA5400631
5400641	TEVISTON CSD	CA5400641
5400647	YOKOHL MUTUAL WATER CO	CA5400647
5400651	BEVERLY GRAND MUTUAL WATER	CA5400651
5400655	CENTRAL MUTUAL WATER CO	CA5400655
5400660	LAKE SUCCESS MOBILE LODGE	CA5400660
5400670	TRIPLE R MUTUAL WATER CO	CA5400670
5400710	BADGER HILL ESTATES	CA5400710
5400718	WILLIAMS MUTUAL WATER CO	CA5400718
5400728	GRIER MUTUAL WATER CO	CA5400728
5400732	PIERPOINT SPRINGS WATER CO.	CA5400732
5400735	RODRIGUEZ LABOR CAMP	CA5400735
5400744	EAST THREE RIVERS MUTUAL	CA5400744
5400754	SOUTH KAWEAH MUTUAL WATER COMPANY	CA5400754
5400769	FOOTHILL APARTMENTS	CA5400769
5400792	WOODVILLE FARM LABOR CENTER	CA5400792
5400805	SOULTS MUTUAL WATER CO	CA5400805
5400816	BEDEL MUTUAL WATER CO	CA5400816
5400819	MOUNTAIN VIEW MHP	CA5400819
5400824	SULTANA CSD	CA5400824
5400875	DIXON WATER COMPANY	CA5400875
5400880	THE LAKES ASSOCIATION	CA5400880
5400881	SUNRISE MUTUAL WATER CO.	CA5400881
5400903	TRACT 92 CSD	CA5400903
5400934	PONDEROSA CSD	CA5400934
5400940	SIERRA KING HOMEOWNERS ASSN	CA5400940
5400964	SIERRA VISTA ASSN	CA5400964
5400966	WESTLAKE VILLAGE MHP	CA5400966
5400968	IMPROVEMENT DIST #1	CA5400968
5401003	EAST OROSI CSD	CA5401003
5401026	DEER MEADOW MUTUAL	CA5401026
5401038	AKIN WATER CO	CA5401038
5402038	PATTERSON TRACT CSD	CA5402038
5402047	GLEANINGS FOR THE HUNGRY	CA5402047
5403023	DELFT COLONY WATER	CA5403023
5403038	SPRINGVILLE WATER CO	CA5403038
5403043	YETTEM WATER SYSTEM	CA5403043
5403084	FAIRWAY MUTUAL WATER CO	CA5403084
5403110	SIERRA MUTUAL WATER CO	CA5403110
5403113	SOUTH FORK ESTATES MUTUAL WATER CO	CA5403113
5403144	ALI MUTUAL WATER CO	CA5403144
5403149	RANCHO LOPEZ	CA5403149
5403202	SALLY TRACH WATER SYSTEM	CA5403202
5410001	CUTLER PUD	CA5410001

5410002	DINUBA, CITY OF	CA5410002
5410003	EXETER, CITY OF	CA5410003
5410004	FARMERSVILLE, CITY OF	CA5410004
5410006	LINDSAY, CITY OF	CA5410006
5410008	OROSI PUBLIC UTILITY DISTRICT	CA5410008
5410010	PORTERVILLE, CITY OF	CA5410010
5410015	TULARE, CITY OF	CA5410015
5410019	IVANHOE PUBLIC UTILITY DIST	CA5410019
5410020	WOODLAKE, CITY OF	CA5410020
5410021	EARLIMART PUD	CA5410021
5410048	PORTERVILLE-JONES CORNER	CA5410048
5410801	PORTERVILLE DEVELOPMENTAL CENTER	CA5410801
0300062	Hope Foundation	CA0300062
5610009	PORT HUENEME WATER DEPT	CA5610009
3900505	Farmington Water Company (Private)	CA3900505
3901092	San Joaquin County Water Works #2	CA3901092
3901216	Santos Ranch CSA 35 Los Ranchos	CA3901216
3901322	Manteca Industrial Park CSA 30	CA3901322
5610010	RIO PLAZA WATER CO INC	CA5610010
2000554	MD #33 Fairmead Dist	CA2000554
2000727	MD #36 Eastin Arcola	CA2000727
5610029	VINEYARD AVENUE ACRES MWC	CA5610029
5610081	CAL AMERICAN WC - LAS POSAS ESTATES	CA5610081
2700728	San Ardo WD	CA2700728
5610700	NAVAL BASE VENTURA COUNTY, POINT MUGU	CA5610700
5610701	NAVAL BASE VENTURA COUNTY, PORT HUENEME	CA5610701
5710004	Knights Landing Services District	CA5710004
5710005	City of Winters	CA5710005
2900562	Ananda Village	CA2900562
5710007	Esparto CSD	CA5710007
4200560	Sisquoc	CA4200560
4200618	Midland School	CA4200618
5000005	Crows Landing CSD	CA5000005
5000008	Knights Ferry CSD	CA5000008
5000010	TID/La Grange	CA5000010
5700571	Madison Service District	CA5700571
5700700	Cacheville Service District	CA5700700
1200592	BIG LAGOON CSD	CA1200592
1310011	COACHELLA VWD: I.D. NO. 11	CA1310011
1503341	TEJON-CASTAIC WD- I5 & LAVAL RD	CA1503341
1800511	LAKE FOREST MUTUAL W.C.	CA1800511
3110150	CALAM - WEST PLACER	CA3110150
5500242	SIERRA WALDORF SCHOOL	CA5500242
5800924	CAMPTONVILLE COMMUNITY SERV DIST	CA5800924
4910018	ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)	CA4910018
4200870	#NAME?	CA4200870

DECISION TREE FOR CLASSIFICATION OF WATER SYSTEMS

"**PUBLIC WATER SYSTEM**" MEANS A SYSTEM FOR THE PROVISION OF WATER FOR HUMAN CONSUMPTION THROUGH PIPES OR OTHER CONSTRUCTED CONVEYANCES THAT HAS 15 OR MORE SERVICE CONNECTIONS OR REGULARLY SERVES AT LEAST 25 INDIVIDUALS DAILY AT LEAST 60 DAYS OUT OF THE YEAR.

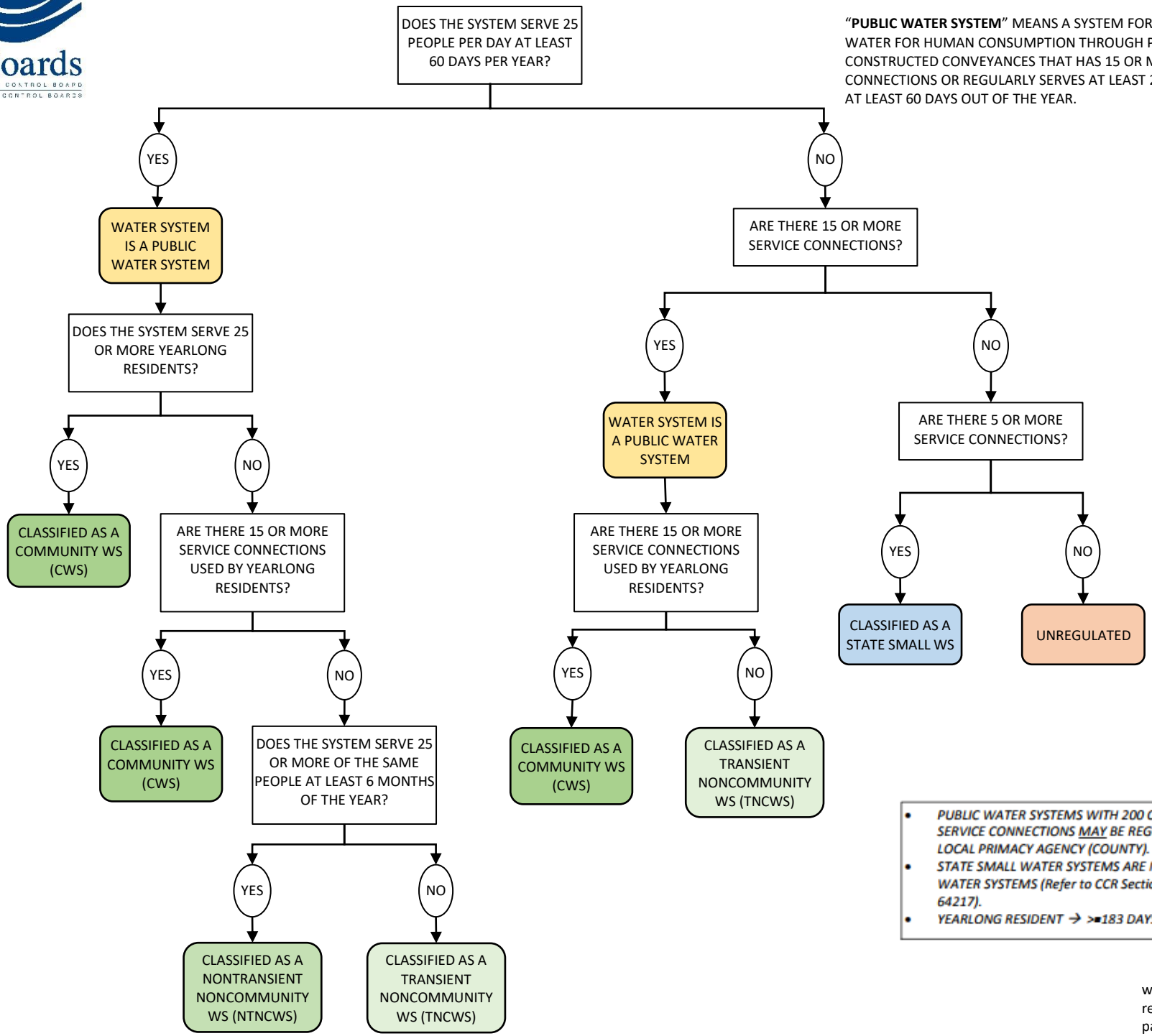

- *PUBLIC WATER SYSTEMS WITH 200 OR LESS SERVICE CONNECTIONS MAY BE REGULATED BY A LOCAL PRIMACY AGENCY (COUNTY).*
- *STATE SMALL WATER SYSTEMS ARE NOT PUBLIC WATER SYSTEMS (Refer to CCR Sections 64211-64217).*
- *YEARLONG RESIDENT → >=183 DAYS/YEAR*

ws_decision_tree
revised 8/21/2017
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California Health and Safety Code §116275

(e) “Human consumption” means the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes.

(h) “Public water system” means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

> (1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.
>
> (2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
>
> (3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(i) “Community water system” means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

(j) “Noncommunity water system” means a public water system that is not a community water system.

(k) “Nontransient noncommunity water system” means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

(n) “State small water system” means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

(o) “Transient noncommunity water system” means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

(s) “Service connection” means the point of connection between the customer’s piping or constructed conveyance, and the water system’s meter, service pipe, or constructed conveyance.

http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=116275

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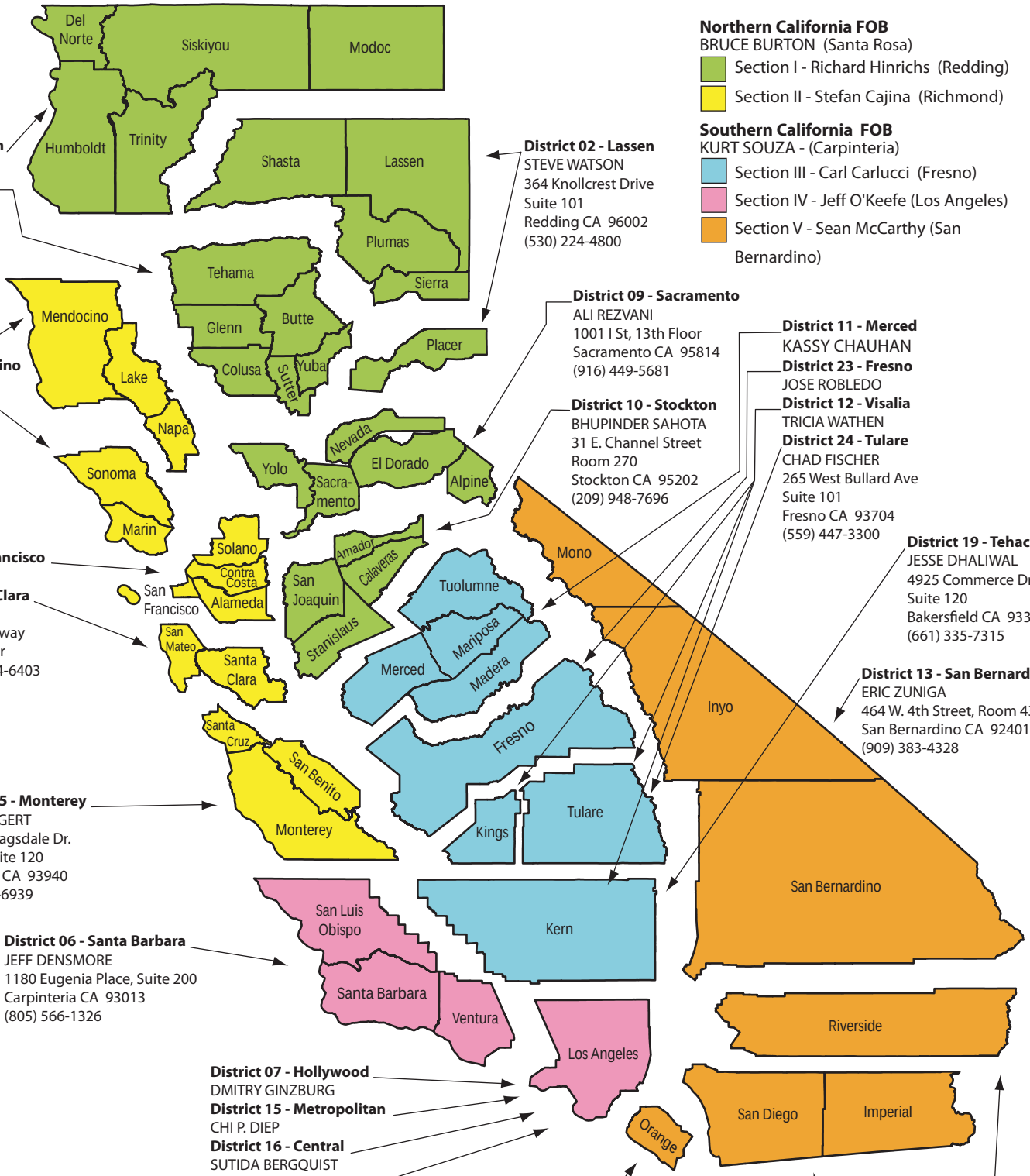

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February 21, 2018

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

CASE STUDIES IN ENVIRONMENTAL MEDICINE (CSEM)

Lead Toxicity

Course: WB2832

CE Original Date: June 12, 2017

CE Expiration Date: June 12, 2019

Key Concepts	• Lead poisoning is a completely preventable disease. • No safe blood lead level (BLL) threshold for children has been identified. • Blood lead levels once considered safe are now demonstrated to be hazardous. • Children of all races and ethnic origins are at risk of lead toxicity throughout the United States. • Lead may cause irreversible neurological damage as well as renal disease, cardiovascular effects, and reproductive toxicity. • Lead is one of the most commonly found hazards at Superfund sites. • This case study is focused on lead exposure in the United States; exposures globally may vary. • Primary prevention of lead exposure is the most important and significant strategy to protect children and adults from lead exposures. • Families, service providers, advocates, and public officials need to be educated on primary prevention of lead exposure in homes and other facilities occupied by children so that lead hazards are eliminated before exposure occurs.
About This and Other ATSDR Case Studies in Environmental Medicine	This educational case study document is one in a series of self-instructional modules designed to increase the primary health care provider's knowledge of hazardous substances in the environment and to promote medical practices that aid in the prevention, evaluation and care of potentially exposed patients. The complete series of

ATSDR Case Studies in Environmental Medicine is located on the ATSDR Web site at URL: http://www.atsdr.cdc.gov/csem/csem.html. In addition, the downloadable PDF version https://www.atsdr.cdc.gov/csem/lead/docs/csem-lead_toxicity_508.pdf of this educational series and other environmental medicine materials provides content in an electronic, printable format, especially for those who may lack adequate Internet service.

Acknowledgements

We gratefully acknowledge the work of the medical writers, editors, and reviewers in producing this educational resource. Contributors to this version of the "ATSDR Case Studies in Environmental Medicine: Lead Toxicity" manuscript are listed below.

Please Note: Each content expert for this case study has indicated that there is no conflict of interest that would bias the case study content.

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U.S. Department of Health and Human Services

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

Environmental Medicine Branch

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How to Use This Course

Introduction	The goal of the ATSDR *Case Studies in Environmental Medicine* (CSEM) series is to increase the primary health care provider's knowledge of hazardous substances in the environment and to promote medical practices that aid in the prevention, evaluation and care of potentially exposed patients. This CSEM focuses on lead toxicity.
Availability	Two versions of the Lead Toxicity CSEM are available. • The HTML version https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=0 provides content through the Internet. • The downloadable PDF version https://www.atsdr.cdc.gov/csem/lead/docs/csem-lead_toxicity_508.pdf provides content in an electronic, printable format, especially for those who may lack adequate Internet service. • The HTML version offers interactive exercises and prescriptive feedback to the user.
Instructions	To make the most effective use of this course, • Take the Initial Check to assess your current knowledge about lead toxicity. • Read the title, learning objectives, text, and key points in each section.

	• Complete the progress check exercises at the end of each section and check your answers. • Complete and submit your assessment and posttest response online if you wish to obtain continuing education credit. Continuing education certificates can be printed immediately upon completion. There is no charge for continuing education credits.
Instructional Format	This course is designed to help you learn efficiently. Topics are clearly labeled so that you can skip sections or quickly scan sections you are already familiar with. This labeling will also allow you to use this training material as a handy reference. To help you identify and absorb important content quickly, each section is structured as follows:

Section Element	**Purpose**
Title	Serves as a "focus question" that you should be able to answer after completing the section.
Learning Objectives	Describes specific content addressed in each section and focuses your attention on important points.
Text	Provides the information you need to answer the progress check question(s) and achieve the learning objectives.
Key Points	Highlights important issues and helps you review.
Progress Check exercises	Enables you to test yourself to determine whether you have mastered the learning objectives.
Progress Check Answers	Provide feedback to ensure you understand the content and can locate information in the text.

Learning Objectives	Upon completion of the Lead Toxicity CSEM, you will be able to:

Section Title	**Learning Objectives**
What Is Lead?	• Explain what lead is.
Where Is Lead	• Describe potential sources of lead exposure in the

Found?	United States today.
What Are Routes of Exposure to Lead?	• Identify the most common routes of exposure to lead in the United States today.
Who Is at Risk of Lead Exposure?	• Identify the populations most heavily exposed to lead.
What Are U.S. Standards for Lead Levels?	• Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood, • Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air, • Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead, and • Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.
What Is the Biological Fate of Lead in the Body?	• Describe how lead is absorbed, • Describe how lead is distributed in the body, and • Identify the half-life of lead in the blood.
What are Possible Health Effects from Lead Exposure?	• Describe how lead affects adults and children, • Describe what is the most sensitive organ system for lead exposure in children, and • Specify that there is no identified threshold or safe level of lead in blood.
Clinical Assessment – Exposure History	• Describe how to take a screening exposure history for lead exposure, and • Identify lead exposure-related questions to ask during a child visit.
Clinical Assessment – Signs and Symptoms	• Name typical signs and symptoms consistent with lead toxicity, • Describe how lead exposure dose and symptoms can vary, and

	• Describe key features of the physical examination for patients exposed to lead.
Clinical Assessment – Diagnostic Tests and Imaging	• Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure, and • Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.
How Should Patients Exposed to Lead Be Treated and Managed?	• Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5µg/dL.
What Instructions Should Be Given to Patients?	• Describe instructions to parents and patients to prevent or reduce lead exposure, • Describe instructions for patients exposed to lead, and • Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

Initial Check

Instructions	This Initial Check will help you assess your current knowledge about lead toxicity. To take the Initial Check, read the case below, and then answer the questions that follow.

Case Study

A father brings his 2-year-old boy into a pediatrician's office for a routine well-child visit. The boys lives with his parents and an older sister in a rented apartment.

The pediatrician examines the boy and finds no abnormalities. The boy's growth and development indicators are within normal limits for his age.

Three years later, concerned that her child is hyperactive, the mother brings the same child, now 5 years old, to your office (his previous pediatrician recently retired).

At a parent-teacher conference last week, the kindergarten teacher said that the boy seems impulsive and has trouble concentrating. They recommended evaluation by a physician as well as by the school psychologist. The mother states that her son has always seemed restless and easily distracted, but that these first 6 months in kindergarten have been especially difficult.

He has also complained recently of frequent intermittent abdominal pains and constipation. The mother gave him acetaminophen for stomach pains with little change. She has also been giving him a fiber laxative, which has reduced the frequency and severity of constipation. She wonders if the change to attending kindergarten has played a role in his increased complaints.

Family history reveals that the boy's parents are divorced. He lives with his older sister, mother, and maternal grandparents in an older suburb of your community. The parents divorced when the boy was three years old. The father works in retail at a local shopping center. The child visits with his father one weekend a month, which is working out fine. However, he seems to be fighting more with his sister, who has been diagnosed with attention deficit hyperactivity disorder (ADHD) and is repeating first grade. Since the mother moved in with her parents after her divorce 2 years ago, she has worked with the grandfather in an automobile radiator repair shop, where her children often come to play after school. She has recently been

laid off and has expressed worry about increasing financial dependence on her parents as the children grow older. She also worries that the grandfather, who has gout and complains increasingly of abdominal pain, may become even more irritable when he learns that she is pregnant from the father of her son. Her third child is due in 6½ months. The father has no lead exposure risk factors.

When you inquire about the home, she explains that it was built in the 1960s. Her father bought it 30 years ago at a good price, as it is on a busy street close to the center of town. She has no idea of the type of pipes they have or the source of drinking water. They don't use any kind of water filtration system. The yard is bare. She doesn't see her father doing any improvements to the house due to his economic situation.

You ask about smoking habits and learn that the mother smokes up to a pack of cigarettes a day, sometimes in front of the children at home. The grandfather also smokes, but seldom in front of the children.

On chart review, you see that the previous pediatrician examined the boy for his preschool physical 1 year ago. A note describes a very active 4 year old who could dress himself without help but could not correctly name the primary colors. His vision was normal, but hearing acuity was below normal according to a hearing test administered for his preschool physical. The previous doctor noted that the boy's speech and language abilities were slightly delayed. Immunizations are up to date.

Further history on last year's visit indicated adequate diet, with no pica behavior. Hemoglobin 10 g/dL and low ferritin. Hematocrit was diminished at 30%. Peripheral blood smear showed hypochromia and microcytosis. There was no evidence of blood loss, and stool examination was negative for occult blood. The diagnosis was "mild iron deficiency anemia," and elemental iron 5 milligrams/kilograms (mg/kg) per 24 hours (divided 3 times daily without food) was prescribed. The family failed to keep several follow-up

appointments, but the child did apparently complete the prescribed 3-month course of iron supplements. He received no medications and had no known allergies. No psychological studies, learning, speech or behavioral evaluations were performed.

On physical examination today, you note that the boy is in the bottom 10th percentile for height and weight. The previous year he was plotted at the 20th percentile. His attention span is very short, making him appear restless. He has difficulty following simple instructions. Except for hearing acuity below normal, slightly delayed language, and social skills, the boy has reached most important developmental milestones.

Initial Check

1. What information (if taken at his age 2 well child visit) would have assisted with prevention and early identification of lead exposure risks?

   A. Smoking status of parents.
   B. Age and condition of boy's primary residence.
   C. Occupations of family members.
   D. Drinking water source and delivery system.
   E. B and D.
   F. All of the above.

2. What should be included in this boy's problem list?

   A. Delayed language ability, slightly impaired hearing.
   B. Short stature, history of hypochromic, microcytic anemia (treated with iron supplementation), abdominal pain, constipation.
   C. Possible attention deficit hyperactivity disorder, school and family stressors, lead exposure risk.
   D. A and C.
   E. All of the above.

3. What test would you order to confirm or rule out your diagnosis?

   A. Capillary blood lead level (finger stick).
   B. Abdominal radiograph.
   C. Venous blood lead level (BLL).

D. Erythrocyte protoporphyrin (EP)/zinc protoporphyrin (ZPP) level.

4. Which other family member is most vulnerable for effects of lead exposure at this time?

A. The mother.
B. The older sister.
C. The unborn baby.
D. The grandfather.

Initial Check Answers

1. What information (if taken at his age 2 well child visit) would have assisted with prevention and early identification of exposure risks?

The best choice is Answer F. All of the above.

Two of the obvious sources of lead suggested in the case study are leaded paint at home (paint flakes, household dust, and soil) and fumes and dust from solder at the radiator repair shop. However, smoke from cigarettes is also a source of lead that can be an important exposure (first, second or third-hand) to children. He or she could have explained the need to quit smoking not only in front of the children, but in the home, as tobacco and its toxins adhere to the furniture, clothing and walls (third hand smoking). Other information that would have assisted with prevention and early identification of lead exposure risks is the drinking water source and delivery system, as well as the occupations of the mother and father.

You can ask questions about the age of the family's house, when it was most recently painted, and the condition of the paint to get a preliminary sense of the potential extent of this exposure pathway. If the house was built before 1978, the child may be exposed to higher lead content paint chips, lead-contaminated soil, or lead in dust in the home.

Additionally, you should determine if the boy ever had pica (a compulsive eating of non-food items, to be distinguished from normal hand-to-mouth

behavior of children). Pica is more common in children ages 2 to 5, so it is likely that this is a present behavior. You can also ask about the length, type, and precise location of the boy's play at the radiator shop.

More information for this answer can be found in the "Clinical Assessment – Exposure History" section.

2. What should be included in this boy's problem list?

The best choice is Answer E: All of the above.

History suggests

- Delayed language ability,
- Slightly impaired hearing,
- Short stature,
- Possible attention deficit disorder,
- Anemia, and
- Abdominal pain.

The child is also experiencing passive exposure to his mother's cigarette smoke and family disruption and possible stress related to his parents' divorce, or possibly to attending kindergarten.

More information for this answer can be found in the "Clinical Assessment – Signs and Symptoms" section.

3. What test would you order to confirm or rule out your diagnosis?

The best choice is Answer B. Venous blood lead level (BLL).

To confirm lead poisoning, the best test is a venous BLL. Capillary blood draws (finger-sticks) are not considered reliable for diagnosis purposes. A venous or a screening capillary BLL is usually the first test drawn, instead of the EP/ZPP. Erythrocyte protoporphyrin (EP), commonly assayed as zinc

protoporphyrin (ZPP), is not sufficiently sensitive at lower BLLs and therefore is not as useful a screening test for lead exposure in children.

If the BLL is below 25 µg/dL, then a serum ferritin level and other iron studies can be used to determine if iron deficiency anemia exists.

More information for this answer can be found in the "Clinical Assessment – Diagnostic Tests and Imaging" section.

4. Which other family member is most vulnerable for effects of lead exposure at this time?

The best choice is Answer C. The unborn baby.

While the mother may be at risk, the unborn baby has the highest risk of neurodevelopmental problems. The mother has recently been laid off, ending the ongoing occupational exposure for her and her unborn child. However, her lead body burden can continue to expose the unborn child because the bone lead from all sources is mobilized during pregnancy and passed to the fetus through the mother's blood. The unborn baby is also at risk if the mother currently smokes or has smoked in the past. In addition, the baby will be at risk to potential home-based sources when he or she begins to move around and mouth objects. Prenatal exposure and exposure at a very young age to lead can damage development of the brain.

Additional sources of exposure for the children include possibly playing at the radiator repair shop after school, and, since the grandfather still works there, take-home exposure if he brings contaminated clothes or shoes into the house. This is especially important for the pregnant mother, whose occupational exposure has ended but who may still be exposed by the take-home exposure from her father's clothes/shoes. The person

handling these clothes and doing the laundry may also be exposed.

The grandfather may be exposed, as he shows irritability and abdominal pain. If this source is removed (using “lead safe” practices or switching jobs) he should recover. You should, however, suggest that he should be tested and talk to his physician about it. The older sister might be at risk from exposure in the home or radiator repair shop, although because she is older she will probably ingest less lead through hand-to-mouth behavior at this time. However, her history also suggests she may have been exposed as a younger child as well.

More information for this answer can be found in the “Who Is at Risk of Lead Exposure?” “What Are U.S. Standards for Lead Levels” and “What Are Possible Health Effects from Lead Exposure?” sections.

What Is Lead?

Learning Objectives	Upon completion of this section, you will be able to • Explain what lead is.
Introduction	Lead is a soft, blue-gray metal, usually found as lead compounds, combined with other elements. Much of its presence in the environment stems from • Its historic use in paint and gasoline in the United States, • Recycling operations, • Ongoing or historic mining/smelting, • Commercial operations, and • Lead contaminated consumer products.
Forms of Lead	**Elemental lead.** The chemical symbol for lead is Pb (from the Latin name plumbum). Lead has an atomic number of 82 and

an atomic weight of 207.2. It is a bluish-grey metal that tarnishes easily in air to a dark grey. The density of lead is 11.34 g/cm3. It has a low melting point of 327.46 °C or 621.43 °F. Naturally occurring lead ores comprise 0.002% (15g/t) of the earth's crust.

Inorganic lead.

This is the form of lead found in higher lead content paint, soil, dust and various consumer products. The color varies, depending on the chemical form, and the most common forms are white lead (a lead carbonate compound), yellow lead (lead chromate, lead monoxide) or red lead (lead tetraoxide). Lead acetate has a sweetish taste.

Organic lead.

Tetraethyl and tetramethyl lead is the form of lead used in leaded gasoline to increase octane rating. The combustion of organic lead –when it is added to gasoline as a fuel additive– results in the release of lead into the atmosphere. However, their use was phased out in the United States starting in the early 1970's, and banned for use in gasoline for motor vehicles beginning January 1, 1996.

Organic forms of lead are extremely dangerous, as they are absorbed through the skin and are highly toxic to the brain and central nervous system, much more so than inorganic lead.

Exposure to organic lead is generally limited to an occupational context [EPA 1996]. Potential exposures to organic lead should be taken very seriously. The symptoms and treatment are different from those of inorganic lead.

The main focus of this course is on inorganic lead toxicity.

Properties

Lead is a

- Very soft,
- Dense, and
- Ductile (moldable) metal.

Lead is very stable and resistant to corrosion, although acidic water may leach lead out of

- Pipes,
- Fittings, and
- Solder (metal joints).

Lead is a poor conductor of electricity and an effective shield against radiation.

Because of these properties, and because it is relatively easy to mine and recycle, lead has been used for many purposes for thousands of years. Ancient Romans used lead for plumbing, among other uses. In modern times, lead was added to paint and gasoline to improve performance. In the United States, lead was phased out of gasoline starting in the late 1970's, and banned for use in gasoline for motor vehicles beginning January 1, 1996, due to health concerns. Current uses of lead are discussed further in the next section.

Lead accumulation in the body is the result of anthropogenic (human) use, which has concentrated lead throughout the environment. Because lead is spread so widely throughout the environment, it can be found in everyone's body today. The main exposure route is oral, especially in small children, as they have hand-to-mouth behaviors that increase their risks. The respiratory route allows exposure to lead-containing dust, especially in occupational settings and during home renovations. Some authors suggest that because environmental lead accumulation and levels found today, which can result in adverse health effects, many people are exposed to levels of lead that are “orders of magnitude” greater than that of pre-industrial levels [Jusko et al. 2008; Flegal and Smith 1995; Budd et al. 1998].

Key Points	• Lead is a naturally occurring, very soft, dense, and ductile (moldable) metal. • Lead is still used in some commercial products made or imported into the United States. • Lead is very stable and accumulates in the environment. • Lead is resistant to corrosion, although acidic water may leach lead out of pipes, fittings, and solder (metal joints). • The body absorbs organic lead (as was used in leaded gasoline for "on-road" vehicles in the past in the United States, and is used in some occupational settings today) faster than inorganic lead. And, unlike inorganic lead compounds, organic lead can be readily absorbed through the skin. • Most lead encountered in the environment today is inorganic.
Progress Check	1. Which of the following statements regarding environmental lead is correct? A. Lead is a naturally occurring metal that is very soft, dense and ductile. B. Lead is very stable and accumulates in the environment. C. Lead can be found in some consumer products, old house paint, contaminated dust or drinking water. D. Most lead encountered in the environment today is inorganic. E. All of the above. *To review relevant content, see "Properties"* and *"Forms of Lead" in this section.*

Where Is Lead Found?

Learning Objectives	Upon completion of this section, you will be able to • Describe potential sources of lead exposure in the United States today.

Introduction

"An exposure pathway must, by definition, have five components:

1) a source of contamination (such as deteriorating lead-based paint on the walls, doors and windows of a home; used car batteries; open burning of waste);

2) an environmental medium and transport mechanism (such as lead contaminated dust on the floor of a home, lead smoke from open burning, or lead exhaust from leaded gasoline);

3) a point of exposure (such as children's hands, the floor, or children's toys);

4) a route of exposure (such as eating the dust through hand-to-mouth behavior); and

5) an exposed population (such as children in the home environment or pregnant women in polluted environments or workplaces).

When all five components are present, the exposure pathway is termed a complete exposure pathway" [WHO 2010].

The distribution of lead in the environment varies from place to place. Each of the following sources of lead is discussed further in this section.

- Lead-contaminated house dust is the major source of exposure for children in the United States, resulting from higher lead content paint that remains in older buildings.
- Lead occurs in drinking water through leaching from lead-containing pipes, faucets, and solder frequently found in the plumbing of older buildings.
- Lead in lead-glazed food containers may contaminate water, food, and beverages without being seen, tasted, or smelled.
- Lead may be found in and around workplaces where lead is used as well as in waste materials from production processes.

- Lead may still be found in

  - Some commercial products,
  - Some imported jewelry and candies,
  - Children's toys,
  - Cosmetics, and
  - Folk, traditional or home remedies.

- Lead concentrations in soil, air, and water can be especially high near the sites of historic or ongoing mining operations or smelters.
- Lead concentrations in inner city soil can be especially high from accumulation that occurred before the elimination of lead from gasoline in the United States (early phase down/phase out efforts starting in the late 1970s with continuation into the 1990s).
- Lead from exposure to cigarette smoke (including second and third hand tobacco smoke exposures [SHS & THS]) may contribute to increased blood lead levels (BLLs) in children.
- While BLLs over time are consistently declining in the United States, it is still a serious health problem for many people, particularly children in urban areas.

Economic Costs of Childhood Lead Poisoning	"Blood lead concentrations have decreased dramatically in U.S. children over the past 4 decades, but too many children still live in housing with deteriorated high content lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems" [AAP 2016]. Landrigan et al. 2002a estimated that the U.S. economy incurs $43.4 billion annually in the costs of all pediatric environmental disease. Childhood lead poisoning alone accounts for the vast majority of these costs, which includes • Medical costs, • Disability, • Education, and • Parental lost work time. A more recent study described the loss of economic productivity resulting from reduced cognitive potential and from preventable childhood lead exposure to range from $44.8–$60.6 billion in 2008 [Trasande and Liu 2011]. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 µg/dL (50 ppb), impair cognition; there is no identified threshold or safe level of lead in blood [AAP 2016]. Evidence-based guidance is available for managing increased lead exposure in children, and reducing sources of lead in the environment, including lead in housing, soil, water, and consumer products, and has been shown to be cost-beneficial [AAP 2016]. Primary prevention should be the focus of policy on childhood lead toxicity.
Lead-based Paint in Homes and Buildings	Lead-contaminated household dust is considered the major high-dose source of lead for children in the United States today [AAP 2016; Lanphear et al. 2002]. Much of this is due to the degradation of interior paint, especially in housing built before 1978.

In 1977 the Consumer Product Safety Commission (CPSC) limited the lead in most paints to 0.06% (600 ppm by dry weight) [CPSC 1977]. In 2009 CPSC further limited lead content in household paint and similar surface coatings in children's products, and some furniture, for adult and children, to a concentration of lead not greater than 0.009 percent (90 parts per million) [CPSC 2009]. “Many of the steel bridges in the highway system are still coated with paint that contains up to 50% lead by weight” [DOT 2016a].

Most literature refers to “Lead-based paint,” or “Lead Paint” to paint manufactured before 1978, which used to contain higher amounts of lead. Household paint manufactured today may still contain very small amounts of lead.

In addition to degradation of interior paint, lead may be tracked into homes in significant quantities from exterior soil contaminated by historical use of lead in

- Paint (exterior sources),
- Gasoline, or
- Industries (old smelters).

A secondary source of lead exposure for workers' families can take place if workers bring home lead-contaminated dust on their

- Skin,
- Hair,
- Clothes,
- Shoes, or
- Tools.
- Lead may be released through past or ongoing home renovation.
- Even though leaded paint may be covered with non-leaded paint, lead dust may still be released into the home environment by

    - Chalking,
    - Chipping,
    - Friction,
    - Impact, or

- Peeling.

Lead-based paint is present in one-third of the nation's dwellings [ACCLPP 2012].

- Between 83% and 86% of all homes built before 1978 in the United States have lead-based paint in them [CDC 1997a]. A high percentage of these homes are rental properties, a major risk factor for elevated BLLs [ACCLPP 2012]. Rental homes are likely to have less frequent improvements and poor maintenance, thus allowing older lead-containing paint to peel and flake.
- The older the house, the more likely it is to:
  - Contain lead-based paint,
  - Have a higher concentration of lead in the paint, and
  - Have paint that is deteriorated.
- Before 1955, a significant amount of white house paint sold and used was 50% lead and 50% linseed oil. In 1955, manufacturers adopted a voluntary house paint lead-content standard of 1%, but house paint with higher levels of lead continued to be manufactured [Rabin 1989 as cited in AAP 1993].
- The amount of lead allowable in paint was lowered by federal law to 1.0 % in 1971 and then to 0.06% in 1977.

The number of existing U.S. housing units built before 1950, when paint had high lead content, decreased from 27.5 million in 1990 to 25.8 million in 2000 [CDC 2003], and 23.2 million in 2006 [HUD 2011]. Despite the gradual decline in the number of houses containing higher lead content paint, however, it still poses a risk to the millions of children living in these homes.

Lead in Drinking Water	Lead occurs in drinking water through leaching from lead-containing pipes, faucets, and solder frequently found in the plumbing of older buildings. • Homes built before 1986 are more likely to have lead pipes, fixtures, and solder, although newer homes may also be at risk if they are built in older neighborhoods (see below). • "Lead service lines" (the water service pipes that connect the water main in the street or "public water main" to the household plumbing system can be made of lead) in the water supply systems of older neighborhoods can leach lead. Therefore, even if household pipes are replaced, there is still the possibility of receiving lead from "lead service lines". • "Approximately 7 percent of the homes connected to community water systems [in the United States] have a lead service line." "There are about 15 to 22 million Americans nationally served by lead lines" [AWWA 2016]. • If "lead service lines" are replaced, but the household plumbing remains as galvanized iron pipes, there can still be ongoing lead exposure in drinking water. • Corrosion build up on the inside of galvanized pipes can create the potential for lead to accumulate over time. Acidic water can contribute to the leaching of lead from pipes into the drinking water supply. • Having a drinking water filtration system (filtered tap water/filtration pitchers) certified by an independent testing organization such as the National Sanitation Foundation (NSF) to remove lead can be a safe drinking water option when instructions on how to use, maintain, and/or replace filters are followed. • Boiling water will not eliminate lead. Other potential sources of lead contamination include [EPA 2016a; Mushak et al. 1989, as cited in AAP 1993] • Brass fixtures (brass faucets or fittings), • Copper pipes with lead solder for drinking water, and

	• Older drinking water coolers and coffee urns. EPA recommends replacing lead service lines, galvanized pipes or pipes that were soldered using lead, brass faucets/fittings, and the use of filtration systems for tap water [EPA 2016a]. Lead in water has not been identified as the major problem with lead in the United States. However, some areas of the country may have a serious problem with lead contamination in the drinking water distribution system.
Foods and Beverages Contaminated with Lead	Even when lead is not intentionally used in a product, it may contaminate items such as food, water, or alcoholic drinks, such as moonshine whiskey [CDC 1992; Warren and Vaughan 1922]. Lead may contaminate food during • Production, • Processing, • Packaging, and • Storage. *Production* Production sources may include • Leaf and root vegetable uptake of lead from soil, • Deposits of atmospheric lead onto leafy vegetables [Levin et al. 2008; Mushak et al. 1989 as cited in AAP 1993], and • Grinding or cutting equipment used during processing that may be contaminated with lead. *Packaging* Lead in packaging may contaminate food. • Bright red and yellow paints and print on bread bags and candy food wrappers from other countries, particularly Mexico, have been found to contain lead [FDA 2014; Levin et al. 2008; Mushak et al. 1989 as cited in AAP 1993].

	• Although lead was phased out of cans containing food or drinks in the United States in the 1980's, some imported food or drink cans may still contain lead in the solder. *Storage* Food or beverages may be stored in lead-containing vessels that contaminate the product. • Even "safe" pottery and ceramic-ware (especially imported) can become harmful if the protective glaze wears off and exposes people to the lead-containing pigments. • Lead-glazed pottery, particularly if it is imported, is often overlooked as a potential source of lead exposure. • Wine and homemade alcohol distilled and/or stored in leaded containers may become contaminated. • Wine or other alcoholic drinks stored in leaded-crystal glassware may become contaminated. *Other* Other sources of food contamination include • Certain “natural” calcium supplements. • Food grown in lead contaminated soil from historic use of lead-containing pesticides in the United States (such as lead arsenate used as an insecticide or fungicide in orchards).
Commercial Products	While lead is prohibited from many products in the United States, imported or pre-regulation products may still pose a risk. Lead is still used in commercial products [CDC 2013b; CDC 2013d; CDC 2013e; Levin et al. 2008] and may be found in products such as • Artificial turf, • Artificial Christmas trees • Automotive batteries, • Bridge paint, • Computers, • Curtain weights,

	• Fishing tackle, • Jewelry, • Pewter, • Pool cue chalk, • Some ceramic glazes, • Toys (especially antique or imported), • Leaded wick candles, • Vinyl lunch boxes, and • Vinyl miniblinds (made before 1997).
"Traditional" or "Folk" Imported Home Remedies and Cosmetics	Some people can be exposed to lead using certain imported home remedies or cosmetics [CDC 2013c]. Several examples are listed below. The Mexican folk remedies *azarcon* and *greta* used to treat the colic-like illness "empacho" contain lead. These remedies are also known as • Alarcon, • Coral, • Liga, • Maria Luisa, and • Rueda. Lead-containing remedies used by some Asian communities include • Ba-baw-san, • Bali goli, • Chuifong, • Ghasard, • Kandu, and • Tokuwan. Middle Eastern remedies and cosmetics that contain lead include • Alkohl, • Cebagin, and • Saoott. Saper et al. 2004 discussed heavy metal content of Ayurvedic herbal medicine products.

	For more information on these products, see the Centers for Disease Control and Prevention's web site, especially Appendix 1 of the document "Managing Elevated Blood Lead Levels Among Young Children" [CDC 2002] at https://www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm or https://www.cdc.gov/nceh/lead/tips/folkmedicine.htm
Environmental and Industrial Sources	Lead is ubiquitous in the environment because of widespread human use. Environmental background levels vary depending on historic and ongoing uses in the area. • Abandoned industrial lead sites, such as old mines or lead smelters, may continue to pose a potential public health hazard. • Industrial sources range in size from large mines and hazardous waste sites (e.g., Superfund sites) to small auto repair facilities. • Industries such as mining and lead smelting contribute to high levels of lead in the environment around such facilities. • People living near hazardous waste sites, incinerators, landfills may be exposed to lead and chemicals that contain lead by breathing air, drinking water, eating foods, or swallowing dust or dirt that contains lead. • Local community members may be exposed to lead from these sources through ingestion (or inhalation) of lead-contaminated dust or soils. • Higher lead content paint may also contaminate soil, especially in areas immediately adjacent to houses built before 1978, and bridges. • People may be exposed to lead in soils directly or by eating foods grown in lead-contaminated soils, and old orchards. The past use of lead in gasoline has contaminated soils, especially along roadways. Tetraethyl lead (TEL) was phased out of gasoline for "on-road" use in the United States between 1973 and 1996.

Smoking and Second and Third-hand Smoke	Active and passive smoking (second-hand smoke) is associated with increased BLLs in U.S. adults [Mannino et al. 2005] and children [CDC 2013a]. Third-hand smoke (surface residue from tobacco cigarette smoke) is a new health concern [Ferrante et al. 2013]. Second hand smoke (SHS) is generally considered passive or involuntary inhalation exposure to cigarette smoke by persons other than the intended “active” smoker. It may also be referred to as “Environmental Tobacco Smoke” (ETS). Sometimes ETS is broken down into “mainstream smoke” which is exhaled by the smoker and “side stream smoke” which comes from the end of a lit tobacco cigarette, cigar, or pipe. SHS may contribute to increased BLLs in U.S. children, independent of lead dust concentrations [CDC 2013a; USDA 2009 as cited in CDC 2013a; NHLBI 2007; PHS 2006]. There is no risk-free level of secondhand smoke exposure; even brief exposure can be harmful to health. Lead dust concentrations, usually ingested during hand to mouth activity, do not appear to mediate this association, suggesting inhalation as a major pathway of exposure from SHS [Apostolou et al. 2012] Second-hand smoke is associated with increased blood lead levels in U.S. children aged 4-16 years. A representative sample of 5,592 U.S. children, age 4–16 years, who participated in the Third National Health and Nutrition Examination Survey (1988–1994) showed that the geometric mean blood lead levels were 38% higher in children with high cotinine levels compared with children who had low cotinine levels. The logistic regression models showed that children with high cotinine levels were more likely to have blood lead levels ≥10 µg/dL than were children with low cotinine levels [Mannino 2003]. Third-hand smoke (THS) is the residue from tobacco smoke, which remains on just about every surface exposed to that smoke and may build up over time. This residue poses an additional exposure risk, especially in infants and children, that may impact BLLs. Children and infants have an increased exposure risk to tobacco THS

	than adults because they typically spend more time indoors and have age-specific behaviors (such as mouthing). This increased exposure risk may increase their risk of potential health hazards from exposure to THS [Ferrante et al. 2013]. However, more studies are needed to support an association between third-hand smoke exposure and increased BLLs in children.
Occupational Exposures	The major exposure pathways for workers are inhalation and ingestion of lead-bearing dust and fumes. Workers in the lead smelting, refining, and manufacturing industries experience the highest and most prolonged occupational exposures to lead [ATSDR 2010]. Increased risk for occupational lead exposure occurs among workers in • Battery manufacturing, • Automobile brake repair, • Companies that work with lead solder, • Bridge maintenance and repair, • Construction, especially renovation/rehabilitation, • Municipal waste incineration, • Other manufacturing industries, • Pottery/ceramics companies and studios, • Radiator repair, • Rubber products and plastics industries, and • Steel welding/cutting operations. Workers renovating highway overpasses and bridges are frequently exposed to higher lead content paint applied to these structures over many years [OSHA 2005].

”Para-Occupational”, “Take Home”, or “Secondary” Exposure	Para-occupational exposure is defined as exposure which occurs in households who live with an occupationally exposed worker, but who are not themselves occupationally exposed. It is important to note that occupational exposures can result in secondary exposure for workers' families if workers bring home lead-contaminated dust on their • Skin, • Hair, • Clothes, • Shoes, or • Tools. Children may also be exposed to occupational lead sources if parents work in these industries and allow their children to visit them at work, or if lead dust from workers’ • Clothing, • Hair, • Body, • Shoes, or • Tools contaminates the interior of vehicles that children also ride in. Many small businesses and cottage industries are actually located in the home. Some examples include • Battery recycling, • Jewelry making, and • Production of leaded glass and pottery. Household contamination can result in “bystander” exposure levels similar to those found in industrial settings. Secondary exposures (also called domestic, take home, second hand, etc.) can be prevented by workers **showering and/or changing clothing and shoes before returning home** or after finishing their work that involves lead at home.

Historical Use of Leaded Gasoline	The past use of lead in gasoline has contaminated soils, particularly in inner cities, and especially along roadways. “The deadliness of tetraethyl lead was sadly confirmed in the summer of 1924, when workers engaged in producing the additive fell sick and died at several refineries in New Jersey and Ohio. Banner headlines greeted each new fatality until a total of 15 workers had lost their lives -and their minds” [EPA 1985]. Lead has been blended with gasoline, as an additive primarily to boost octane levels, since the early 1920s. In addition to increasing the octane of gasoline, leaded gasoline also protected exhaust valve seats (in vehicles designed to operate on leaded gasoline) from excessive wear. Both of these objectives are now accomplished without the use of leaded gasoline [EPA 1985]. The use of TEL in gasoline paved the way for the development of the high power, high-compression internal combustion engines that were to win WWII and dominate the U.S. automobile industry until the 1970s. The first reduction standards for Tetraethyl lead (TEL) came out in the early 1970s. Effective January 1, 1996, the Clean Air Act banned the sale of leaded fuel for use in on-road vehicles. However, EPA allowed fuel containing TEL to continue to be sold for off-road uses, including aircraft, racing cars, farm equipment, and marine engines [EPA 1996]. As of January 2015, only Algeria, Yemen and Iraq continue to use leaded gasoline –in addition to unleaded gasoline [UNEP 2015].

Historical Use of Lead Arsenate

Lead arsenate (PbHAsO4) was first used in the U.S. apple orchards in 1892 as an insecticide spray. It was the most heavily used arsenical throughout the United States and worldwide [Schooley et al. 2008; Peryea 1998].

Lead arsenate was used in the United States as an insect growth regulator, insecticide, herbicide and fungicide [EPA 1986]. This insecticide was very popular among farmers because of its effectiveness, low cost, ease of use, and persistence. Over the next 60 years the frequency and amount of lead arsenate applications increased, leading to pesticide resistance. Growers eventually switched to more viable alternates –at the time- such as DDT.

Widespread use of lead arsenate and frequent applications at increasing rates over time contributed to lead and arsenic to accumulate in topsoil, contaminating thousands of acres across the United States" [Schooley et al. 2008; Peryea 1998].

Lead Sources and Contaminated Media

Table 1. Where is Lead Found?

Lead Source	**Contaminated Media**
Gasoline (leaded)*	Soil
Lead solder/pipes	Drinking water
Mining and smelting	Outdoor air, dust, soil
Packaging or storage containers (including lead soldered cans)	Food, beverages
Paint (pre-1978)**	Household dust and soil
Production sources	Imported foods, remedies, consumer products including cosmetics, jewelry, toys, candy, glassware, table and cookware.

	Tobacco	Cigarettes, cigars, and other tobacco products when smoked (and second-hand smoke). Clothes, furniture, draperies, walls, hair, skin (from third-hand smoke).	
	Workplaces that involve use of lead	Outdoor and indoor air, and dust	

* Past use of TEL in the United States

** Leaded paint for residential use (higher than 0.06% Pb content) was banned in 1977 [CPSC 1977]. In 2008, the lead content in paint was lowered to 0.009% by CPSC [CPSC 2009]. Many of the steel bridges in the highway system are still coated with paint that contains up to 50% lead by weight [DOT 2016a].

Likely Global Sources of Lead	Countries with different regulations, standards and practices than the United States, may have lead exposure from • Backyard smelters, • Candles (leaded wick), • Candy (and packaging/wrappers because of the ink used to print the labels), • Canned products, • Cottage industries, • Jewelry, • Leaded glassware, • Stained glass paintings and supplies, • Moonshine alcohol (may be a risk in some countries), • Poor quality lead glazes, • Toys, • Traditional or folk remedies, etc.
Key Points	• Prior to the 1950s, higher lead content paint was widely used. • Residential use of higher lead content paint was banned in 1978 in the United States, with the establishment of a 0.06% allowable lead content in house paint in 1977.

- The allowable 1977 amount was further reduced in 2008 to 0.009% lead content.
- In the United States higher lead content paint is a primary source of environmental exposure to lead. Lead may be released from higher lead content paint in home environments if the paint is

  - Disturbed (e.g., during renovation),
  - Deteriorated (peeling, chipping, and chalking), or,
  - Subject to friction or impact (doors, windows, porches, etc.).

- The past use of lead in gasoline and higher lead content in paint can result in high lead levels in soil and house dust.
- Some commercial products still contain lead (and some imported products that aren't regulated as they would be if made in the United States).
- Contaminated

  - Drinking water,
  - Food,
  - Alcohol, and
  - Home remedies are some sources of environmental exposure to lead.

- Workers in many industries (with potential for secondary exposure to their families) can have occupational exposure to lead.
- Historic or ongoing lead-related industries (including mining and smelting) can result in high lead levels in surrounding soil.
- Tobacco smoking is associated with increased BLLs in adults.
- Second-hand smoke can increase BLLs in children.
- Third-hand smoke is a more recent health concern. More studies are needed to support an association between third-hand smoke exposure and increased BLLs in children.

Progress Check	2. In the United States today, all of the following are potential exposure sources for lead, **EXCEPT**: A. Gasoline for on-road vehicles. B. House paint (produced pre 1978). C. Lead or galvanized home water pipes. D. Imported food storage containers, home remedies, and cosmetics. E. Tobacco smoking and second-hand smoke. *To review relevant content, see "Lead-Based Paint in Homes and Buildings", Foods and Beverages Contaminated with Lead", "Traditional or 'Folk' Imported Home Remedies and Cosmetics", "Smoking and Second and Third hand Smoke", "Historical use of Leaded Gasoline", and "Likely Global Sources of Lead" in this section.*

What Are Routes of Exposure to Lead?

Learning Objectives	Upon completion of this section, you will be able to • Identify the most common routes of exposure to lead in the United States today.

Introduction	Today almost everyone is exposed to environmental lead. Exposure to lead and lead chemicals can occur through inhalation, ingestion, dermal absorption, absorption from retained or embedded leaded foreign body, and trans-placental (endogenous) routes. • Most human exposure to lead occurs through ingestion or inhalation. • In the United States, the public is not as likely to encounter lead that readily enters the human body through the skin (dermal exposure), especially now that leaded gasoline is banned for on-road vehicles. • Retained shrapnel, bullets or other embedded leaded foreign bodies can be a source of ongoing lead exposure. • Inhalation may be the major contributor for workers in lead-related occupations and "do-it-yourself" home renovators and persons with hobbies (stained glass making/soldering, etc.). Lead exposure is a global issue. Lead mining and lead smelting are common in many countries, where children and adults can receive substantial lead exposure from often unregulated sources at high levels that are uncommon today in the United States [Kaul et al. 1999; Litvak et al. 1999; Wasserman et al. 1997; López-Carrillo et al. 1996; Rothenberg et al. 1994]. Most countries have discontinued or are in the process of phasing out the use of leaded gasoline for all uses [UNEP 2011].
Ingestion	Lead exposure in the general population (including children) occurs primarily through ingestion, making it the route that most commonly leads to elevated BLLs. This includes swallowing a foreign body containing lead (i.e., jewelry, etc.). From 20% to 70% of ingested lead is absorbed into the body, (with children generally absorbing a higher percentage than adults) [ATSDR 2010] (see the *"What are Possible Health Effects from Lead Exposure?"* section).

	• Lead paint is the major source of higher lead level exposures in children in the United States [ATSDR 2010; AAP 1993]. As higher lead content paint o Deteriorates, o Peels, o Chips, o Is removed (e.g., during renovation), o Or crumbles due to friction (e.g., in windowsills, steps, and doors), house dust and surrounding soil may become contaminated. Lead then enters the body through normal hand-to-mouth activity [Sayre et al. 1974, as cited in AAP 1993]. • Ingestion of contaminated o Food, o Water, or o Alcohol may be significant for some populations. In addition, ingesting certain traditional, folk or home remedy medicines may expose people to lead or lead compounds (see the *"Where is Lead Found?"* section). • When fine particulate lead is inhaled, it can be absorbed directly through the lungs or could also be carried by the mucociliary tree to the throat where it can be swallowed and absorbed via the GI system.
Inhalation	Inhalation is the second major pathway of exposure for the general population in the United States. The amount absorbed from the respiratory system depends on particle size, respiratory volume, amount of deposition, and the mucociliary clearance of the inhaled lead. • Almost all inhaled lead is absorbed into the body (with children generally absorbing a higher percentage than adults, as they have a higher respiratory frequency) [ATSDR 2010] (see the *"What are Possible Health Effects from Lead Exposure?"* section).

	• Since leaded gasoline additives were phased out beginning in the 1970s and control measures were implemented in industries to reduce air emissions, inhalation from these sources is no longer the major exposure pathway to lead for the general population in the United States. • Leaded gasoline is still used in only a handful of countries, but the resulting emissions pose a major public health threat. • Inhalation may be the primary route of exposure for some workers in industries that involve lead. • Inhalation may be the primary route of exposure for adults involved in home renovation activities, and hobbies like lead glass making, stained glass making/soldering. • Lead is a component of tobacco and tobacco smoke, and smokers have higher blood lead levels (BLLs) than do nonsmokers [Mannino et al. 2005; Mannino et al. 2003]. • Second hand smoke may contribute to increased BLLs in U.S. children. Lead dust concentrations, usually ingested during hand to mouth activity, do not appear to mediate this association, suggesting inhalation of second hand smoke is a major pathway of exposure [Apostolou et al. 2012]. • Eliminating second hand smoke exposure may reduce lead exposure in children [Apostolou et al. 2012].
Dermal	Dermal exposure plays a role for exposure to organic lead among workers, but is not considered a significant pathway for the general population. • Organic lead may be absorbed directly through the skin. • Organic lead (tetraethyl lead) is more likely to be absorbed through the skin than inorganic lead. • Dermal exposure is most likely among people who work with lead or materials that contain lead.
Endogenous Exposure	Endogenous exposure to lead may contribute significantly to an individual's current BLL. Numerous reports document lead poisoning resulting from retained bullet or shrapnel fragments; thus, a history of military

	or other penetrating trauma may be important [Kathuria 2014]. If in a pregnant woman, this poses a particular risk to the developing fetus (See the *"What are Possible Health Effects from Lead Exposure?"* section). Trans-placental exposure to the unborn child can happen if the mother is exposed to lead. • Once absorbed into the body, lead may be stored for long periods in mineralizing tissue (*e.g.,* teeth and bones). • The stored lead may be released again into the bloodstream, especially in times of calcium stress (*e.g.*, pregnancy, lactation, osteoporosis) or calcium deficiency.
Key Points	• Ingestion is the most common route of exposure to lead for children, and the route that most commonly leads to elevated BLLs. • Inhalation can be a significant exposure pathway, particularly for workers in lead industries, "do-it-yourself" home renovators, persons with hobbies (stained glass making/soldering), smokers and children exposed to second hand smoke. • Embedded or retained leaded foreign bodies can be a source of ongoing lead exposure. • Trans-placental exposure to the unborn child can happen if the mother is exposed to lead.
Progress Check	3. The two primary routes of exposure to lead in U.S. children are A. Ingestion and inhalation. B. Inhalation and dermal. C. Dermal and endogenous. D. Endogenous and inhalation. *To review relevant content, see "Ingestion" in this section.*

Who Is at Risk of Lead Exposure?

Learning Objectives	Upon completion of this section, you will be able to

	• Identify the populations most heavily exposed to lead.
Introduction	"In the late 1700s, Ben Franklin described various environmental and occupational effects which he attributed to lead, affecting trades, such as printers, plumbers, and painters. In the early 1900s, detailed information on the hazards began to appear. First, a study in Britain linked exposures to lead with high rates of infertility, stillbirths, and first year infant deaths. About the same time, an Australian study observed lead poisoning among children and identified household dust and paint as the sources of the lead. Childhood activities, such as nail-biting, thumb-sucking, and eating with fingers contaminated with lead are the ways lead was introduced into the body" [DOT 2016b]. Both children and adults are susceptible to health effects from lead exposure, although the typical exposure pathways and effects can be somewhat different. • Children who reside in pre-1978 housing (and especially those in inner cities, where a large number of older rental homes exist, or homes built before 1950) are at greatest risk for exposure, because older housing may contain paint with higher lead content. • "Childhood lead exposure has a significant and persistent impact on brain reorganization associated with language function" [Yuan et al. 2006]. • Adults who work in jobs involving lead are occupationally exposed. • Developing fetuses are also at risk for adverse health outcomes (less than 1% of the mothers have levels greater than or equal to 5 micrograms per deciliter, or µg/dL), as levels that present risk to the fetus may not present risk to the mother. • Smokers and their relatives (if exposed to second-hand smoke) are at a high risk for exposure due to the lead in tobacco smoke.

Children	While children's blood lead levels (BLLs) have steadily declined in recent decades, there are still an estimated 535,000 U.S. children ages 1-5 years with BLLs at or above the upper reference source range value of 5 µg/dL [CDC 2013g]. This was calculated using the 2007-2010 National Health and Nutrition Examination Survey [NHANES] cycle that showed 2.6% of children in this age group, with levels above 5 mcg/dL, based on the U.S. Census Bureau 2010 count [CDC 2013g]. • In particular, children who live in older housing are more likely to have elevated BLLs than U.S. children as a whole. • No economic or racial/ethnic subgroup of children is free from the risk of adverse health effects due to high BLLs. • Of the 434,000 children reported with confirmed elevated BLLs (≥10 µg/dL) between 1997 and 2001 (2.2% of children aged 1-5 years), approximately o 17% were non-Hispanic whites, o 60% were non-Hispanic African-Americans, o 16% were Hispanic, and o 7% were of other races or ethnicities [CDC 2003]. • The children affected are more likely to be poor and from racial/ethnic minority groups living in substandard housing. African-American children remain at increased risk for higher blood lead concentration after adjusting for environmental lead exposures and dietary intake [Lanphear et al. 2002]. Because of their behavior and physiology, children are more affected by exposure to lead than adults. • Children absorb more ingested lead than do adults. • Children generally ingest lead-contaminated soil and house dust at higher rates than adults because of mouthing and hand-to-mouth behaviors. • Children who exhibit pica, a compulsive hand-to-mouth behavior and repeated eating of non-food

items –not considered pathologic in infants and toddlers up to 2 years of age-, are at greatest risk.

- Children have a higher breathing rate than adults, breathing in a greater volume of air per pound.
- Being shorter than adults, children are more likely to breathe lead-contaminated dust and soil as well as lead-containing fumes close to the ground.
- The percent of lead absorbed in the gut, especially in an empty stomach, is estimated to be as much as 5 to 10 times greater in infants and young children than in adults [Ziegler et al. 1978 as cited in ATSDR 1999; James et al. 1985; Chamberlain et al. 1978; Alexander et al. 1974].
- Gastrointestinal absorption of lead in children is increased by deficiencies in

    - Ascorbate,
    - Calcium,
    - Iron, and
    - Zinc [Mahaffey 1990, as cited in AAP 1993].

Lead in dust and water can contribute up to 35% and 20% respectively to lead exposure in children's Blood Lead Levels (Figure 1).

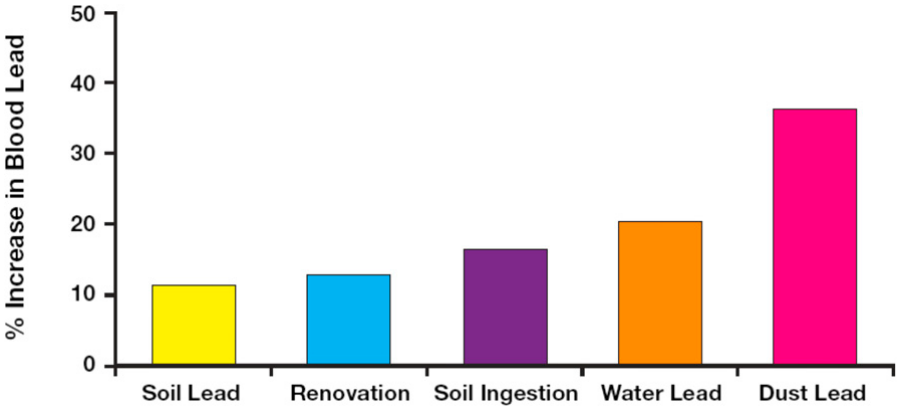

Figure 1. Sources of Contribution of Lead Exposure to Children's Blood Lead Concentrations [AAP 2016, adapted from Lanphear et al. 2012, and Spanier et al. 2013]

Children are more sensitive than adults to elevated BLLs. Children's developing brains, nervous system, and other organ systems are very sensitive to lead.

Differences between the adult blood brain barrier and that of fetuses and very young children, increases the risk of lead's entry into the developing central nervous system of the latter two. This can result in prolonged or permanent neurobehavioral disorders.

- Childhood lead exposure is inversely associated with

  - Brain reorganization associated with language function [Yuan et al. 2006],
  - Intellectual abilities [Lanphear et al. 2005],
  - Academic achievement,
  - Psychomotor development [Lanphear et al. 2005],
  - High school attendance,
  - Reaction times,
  - Class rank,
  - Hand and-eye coordination, and
  - Vocabulary and grammatical reasoning scores [AAP 1993].

- ”Blood lead concentrations <5 µg/dL are associated with intellectual deficits (lower IQ score), academic disabilities, attention-related behaviors, and problem behaviors” [Landrigan and Etzel 2014].
- Lanphear et al. [2005] report a deficit of approximately 2 IQ points for the Blood Lead variable of 10-20 µg/dL. The decrements in IQ associated with lead were found to be proportionately greater at the lowest blood lead levels [Landrigan and Etzel 2014; Bellinger 2008]. “At lower concentrations of lead in the blood – below 10 µg/dL - children tested for IQ at ages three and five, showed a greater decline in IQ for a rise in blood lead from 1 to 10 µg/dL, than those whose blood lead level went from 10 to 20 µg/dL” [Canfield et al. 2003].
- “The blood lead concentration was inversely and significantly associated with IQ. In the linear model, each increase of 10 µg per deciliter in the lifetime average blood lead concentration was associated with a 4.6-point decrease in IQ (P=0.004), whereas for the subsample of 101 children whose maximal

lead concentrations remained below 10 µg per deciliter, the change in IQ associated with a given change in lead concentration was greater. When estimated in a nonlinear model with the full sample, IQ declined by 7.4 points as lifetime average blood lead concentrations increased from 1 to 10 µg per deciliter" [Canfield et al. 2003].

- "Early childhood lead exposure is associated with poorer achievement on standardized reading and math tests in the third grade, even at very low B-Pbs" [Evens et al. 2015].
- "Children with moderate lead poisoning in early childhood performed significantly lower on all components of elementary school end-of-grade examinations compared with unexposed children" [Magzamen et al. 2013].
- Even low-level lead exposure can negatively impact a wide range of cognitive functions, such as attention, language, memory, cognitive flexibility, and visual-motor integration based on various types of neuropsychological and neurobehavioral testing [Canfield et al. 2004; Canfield et al. 2003].
- "For every 1 µg/dL increase in blood lead concentration, there was a 0.7-point decrement in mean arithmetic scores, an approximately 1-point decrement in mean reading scores, a 0.1-point decrement in mean scores on a measure of nonverbal reasoning, and a 0.5-point decrement in mean scores on a measure of short-term memory. An inverse relationship between blood lead concentration and arithmetic and reading scores was observed for children with blood lead concentrations lower than 5.0 µg/dL" [Lanphear et al. 2000].
- Children's renal, endocrine, and hematological systems may also be adversely affected by lead exposure.

Children are also exposed to lead through second-hand tobacco smoke [Apostolou et al. 2012; Mannino et al. 2005; Mannino et al. 2003].

There is no known threshold exposure level (as indicated by BLL) for many of these effects. No blood

	lead threshold for adverse health effects has been identified in children, however, more severe effects occur at higher levels and more subtle effects, some not clinically recognizable, at very low levels. Preventing lead exposure in early childhood is critical to improving school performance [Evens et al. 2015; Lanphear et al. 2005]. “The consequences of exposure to many other chemicals or mixtures of chemicals, such as insecticides —chemicals oftentimes specifically designed to be toxic— are largely unknown. Many of these chemicals or their metabolites are routinely found in the blood and body fluids of pregnant women and children” [Lanphear et al. 2005].
Adults	Although children are at greater risk from lead exposure, adult exposures can also result in harmful health effects. • Most adult exposures are occupational and occur in lead-related industries such as [CDC 2016] o Manufacturing, o Construction, o Services, and o Mining. • One frequent source of lead exposure to adults is home renovation that involves o Scraping, o Remodeling, or o Otherwise disturbing lead-based paint. Renovation involving lead based paint should only be undertaken after proper training, or with the use of certified personnel (see EPA’s Safe Renovation brochure at http://www2.epa.gov/lead/lead-safe-certified-guide-renovate-right.

- Adults can also be exposed during certain hobbies and activities where lead is used [CDC 2011a]. Some of the more common examples include

  - Artistic painting,
  - Car repair,
  - Electronics soldering,
  - Glazed pottery making,
  - Metal soldering,
  - Molding of bullets, slugs, or fishing sinkers,
  - Stained-glass making, and
  - Shooting firearms.

- Tobacco smoke is a source of lead [Apostolou et al. 2012; Mannino et al. 2005; Mannino et al. 2003].
- Mine workers may inhale lead dust and lead oxide fumes if they

  - Eat,
  - Drink, and
  - Smoke in or near contaminated areas, thereby increasing their probability of lead ingestion.

- If showers and changes of clothing are not provided, workers can contaminate their homes and/or vehicles with lead dust on their

  - Hair,
  - Skin,
  - Shoes,
  - Clothing, and
  - Tools

  thus inadvertently exposing family members.

- People who use the following items also increase their lead exposure risk:

  - Paints, pigments,
  - Facial makeup, or
  - Hair coloring with lead or lead acetate.

- Cosmetics containing lead include

- Surma,
- Sindhoor and
- Kohl,

popular in certain Asian countries.

- Other than the developmental effects unique to young children, the health effects experienced by adults from adult exposures are similar to those experienced by children, although the thresholds are generally higher.

Table 2. Populations at Risk of Exposure to Lead in the Workplace	
• Auto repairers	• Lead refining workers
• Battery manufacturers and recycling	• Lead smelter workers
• Bridge reconstruction workers	• Plastic manufacturers
• Construction workers	• Plumbers, pipe fitters
• Firing range instructors	• Police officers
• Glass manufacturers	• Printers
• Lead manufacturing industry employees	• Rubber product manufacturers
• Lead mining workers	• Shipbuilders
• Workers in recycling plants for electronics, computers, etc.	• Steel welders or cutters

Pregnant Women, Lactating Women and Developing Fetuses	The mother's BLL is an important indication of risk to the fetus and neurological problems in newborns. In addition, mothers who had exposure to lead in the past may store lead in their bones. Lead may be released from bones during times of calcium stress such as pregnancy and lactation. Pregnant women with elevated BLLs may have an increased chance of • Preterm labor, • Miscarriage, • Neurological effects and intrauterine growth restriction (IUGR), • Spontaneous abortion or stillbirth, and/or • Low birth weight. See the *"What are Possible Health Effects from Lead Exposure?"* section for more information.

Table 3. Risk Factors for Lead Exposure in Pregnant and Lactating Women [CDC 2012]
• Recent immigration from or residency in areas where ambient lead contamination is high, e.g., from countries where leaded gasoline is still being used (or was recently phased out), or where industrial emissions are not well-controlled. • Living near a source of lead, such as lead mines, smelters, or battery recycling plants (even if the establishment is closed). • Working with lead or living with someone who does (take-home exposures). • Cooking, storing, or serving food in lead-glazed ceramic pottery made in a traditional process and usually imported by individuals outside the normal regulatory commercial channels. • Eating or mouthing non-food items (pica) that may be contaminated with lead (such as soil, clay, or lead-glazed ceramic pottery). • Using alternative or complementary medicines, herbs, or therapies for home remedies or certain traditional herbs that may be contaminated with lead.

	• Using imported cosmetics, such as kohl or surma, or certain imported foods or spices that may be contaminated with lead. • Engaging in certain high-risk hobbies or recreational activities, like leaded glass, hunting, or jewelry making (if using leaded products), and those who have family members who do. • Renovating or remodeling older homes without using safe lead work practices. • Disturbing higher lead content paint and/or creating lead dust, or spending time in such a home environment. • Consuming lead-contaminated drinking water from homes with leaded pipes or source lines with lead. • Having a history of previous lead exposure or evidence of elevated body burden of lead from past exposures, particularly with a deficiency in certain key nutrients (e.g., calcium, iron). • Living with someone identified with an elevated BLL. • Having exposures in common with a child, close friend, or other relative living in the same environment.
Key Points	• Today, children who live in pre-1978 housing are the population generally at greatest risk for lead poisoning. • Adults who work with lead or have hobbies involving lead may also be significantly exposed. • Developing fetuses exposed to lead are also at risk for adverse health outcomes. • Children may also be exposed to lead through second-hand tobacco smoke.
Progress Check	4. Which population group is likely to be the most heavily exposed to lead in the United States? A. Pregnant women living near industrial sites. B. Children who live in older housing, especially those in inner cities. C. African-American teenagers of single households with no high school completion.

D. Older adults in nursing homes that were built before 1978.

To review relevant content, see "Introduction" and Children" in this section.

5. In general, all of the following occupations entail significant exposure to lead **EXCEPT**

A. Automobile mechanics.
B. Construction workers.
C. Plumbers.
D. Electricians.

To review relevant content, see "Adults" in this section.

What Are U.S. Standards for Lead Levels?

Learning Objectives

Upon completion of this section, you will be able to

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood,
- Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air,
- Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead, and
- Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.

Introduction

Because lead causes significant public health problems, a number of federal agencies have issued advisory standards or enforceable regulations that set lead levels in different media. Table 4: Standards and Regulations for Lead, below summarizes these standards and regulations [ACCLPP 2012]; see subsequent sections for further explanation.

Although reductions in lead exposure for the U.S. population have resulted in lower blood lead levels (BLLs) over time, epidemiological studies continue to provide evidence of health effects at increasingly lower BLLs [AAP 2016, NTP 2012].

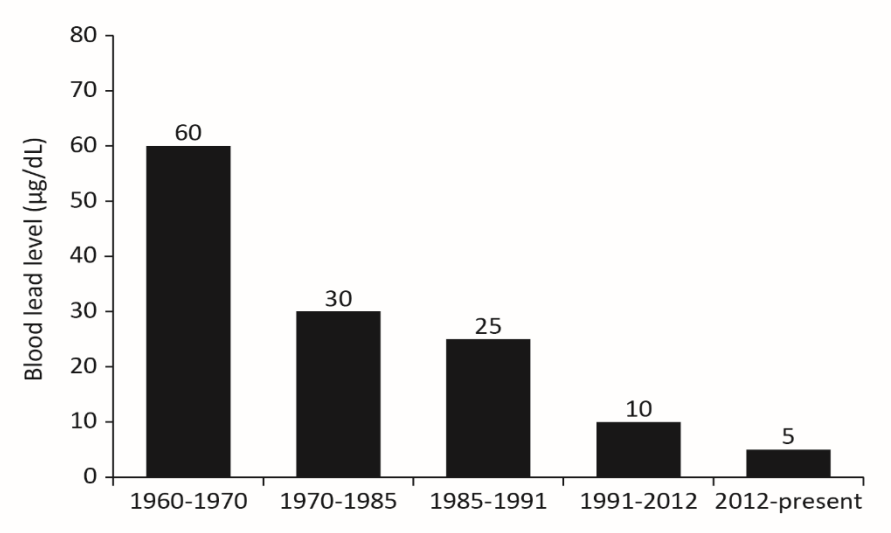

Figure 2. Lowering of BLLs Considered Elevated by CDC Over Time

The National Toxicology Program [2012] concludes that there is sufficient evidence for adverse health effects in children and adults at BLL <5 µg/dL [CDC 2012].

Biologic Guidelines	As new information has emerged about the • Neurological, • Reproductive, and • Possible hypertensive toxicity of lead, and as parameters that are more sensitive are developed, BLLs previously thought to be "safe" have been demonstrated to cause adverse health outcomes. Five micrograms per deciliter (µg/dL) was adopted by CDC in 2012 as the upper reference range value for BLLs in children as an advisory level for environmental and educational intervention [ACCLPP 2012]. • Primary prevention strategies should be designed to keep children's BLLs below 5 µg/dL [ACCLPP 2012]. • Children receiving Medicaid are required to be screened. • No blood lead threshold for adverse health effects has been identified in children, and no BLL above zero is free of all risk. • At lower concentrations of lead in the blood – below 10 µg/dL - children tested for IQ at ages three and five, showed a greater decline in IQ for a rise in blood lead from 1 to 10 µg/dL, than those whose blood lead level went from 10 to 20 µg/dL [Canfield et al. 2003]. Experts now use an upper reference level value of 97.5% of the population distribution for children's blood lead, based on the National Health and Nutrition Examination Survey (NHANES) estimate of the distribution of BLLs in children ages 1-5 years. In 2012-2015, the value to identify children with blood lead levels that are much higher than most children have, is 5 micrograms per deciliter (5 µg/dL) [ACCLPP 2012]. The National Toxicology Program [2012] concludes that there is sufficient evidence for adverse health effects in children and adults at BLL <5 µg/dL [CDC 2012]. The American Conference of Industrial Hygienists (ACGIH) develops Biological Exposure Indices (BEI) as

	guidance values for assessing biological monitoring results in occupational settings by individuals trained in the discipline of industrial hygiene to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by individuals without training in the discipline of industrial hygiene.
Physician Reporting Require-ments	Most states ask or require primary care physicians and/or laboratories to report all BLLs to the appropriate health agency. This is to ensure • Abatement (removal) of the lead source, • Education of the patient, parent/family, • Remediation (corrective) steps are taken, and • Targeting public health activities to areas with highest risk. Physicians should strongly consider consulting a health agency, such as the local health department, or poison control center, in cases of lead toxicity.
Workplace Air	The OSHA Lead Standard applies to all workers in general industries, shipyards, and in construction industries where an employee may be occupationally exposed to lead [OSHA 2012a OSHA 2012b OSHA 2012c]. Action level means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 $\mu g/m^3$) calculated as an 8-hour time-weighted average (TWA). • OSHA set a Permissible Exposure Limit (PEL) for lead in workplace air of 50 $\mu g/m^3$ (8-hour time weighted average). • OSHA mandates periodic determination of BLL for those exposed to air concentrations at or above the action level of 30 $\mu g/m^3$ for more than 30 days per year. • The worker must be notified in writing within 15 days after the receipt of the results or any monitoring performed, and provided with a medical

examination if a BLL is found to be greater than 40 µg/dL.

- The employer is obligated to remove the employee from excessive exposure, with maintenance of seniority and pay, until the employee's BLL falls below 40 µg/dL if a worker's one-time BLL reaches 60 µg/dL (or averages 50 µg/dL or more on three or more tests) in general industries or shipyards, or 50 µg/dL in construction.

The current Code of Federal Regulations standards for lead may be accessed at: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10030.

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10641.

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10318. States can have more protective standards than federal OSHA, e.g., California.

The National Institute of Occupational Safety and Health (NIOSH) at CDC has set a Recommended Exposure Limit (REL) of 50 µg/m^3 for a Time Weighted Average (TWA) of 8 hours to be maintained so that worker blood lead remains <60 µg/dL of whole blood. The REL can be accessed at: https://www.cdc.gov/niosh/npg/npgd0368.html.

ACGIH has set a threshold limit value for a time-weighted average (TLV/TWA) of 50 µg/m^3 for lead in workplace air (except for lead arsenate). This can be accessed at: http://www.acgih.org/

ACGIH has set a Biological Exposure Indices (BEI) for blood lead at 30 µg/dL.

As previously mentioned, ACGIH's BEI and TLV values are intended for use in the practice of industrial hygiene as guidelines or recommendations to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by

	individuals without training in the discipline of industrial hygiene. CDC [2010] recommends a precautionary approach, noting that a BLL ≥5 µg/dL in a pregnant woman indicates that she has or has had exposure to lead well above that for most women of child bearing age in the United States. For occupationally exposed pregnant women, the recommendation is to keep BLLs as low as possible and to remove pregnant women from lead-exposed work areas if BLLs are ≥10 µg/dL [CDC 2010]. CDC/NIOSH reference BLL for adults is 5 µg/dL [CDC 2013h].
Soil	Lead-contaminated soil can pose a risk through direct ingestion, uptake in vegetable gardens, or tracking into homes. • Soil contains lead concentrations less than 50 parts per million (ppm), but soil lead levels in many urban areas exceed 200 ppm [AAP 1993]. • The EPA's standard for lead in bare soil in play areas is 400 ppm by weight and 1200 ppm for non-play areas [EPA 2000a]. This regulation applies to cleanup projects using federal funds. The soil screening level (SSL) for lead represents a conservative estimate for a level that would be protective of public health in residential soils based on an analysis of the direct ingestion pathway for children. This value is for guidance only and is not enforceable.

Drinking Water

The Lead and Copper Rule (also referred to as the LCR) is an EPA regulation to control lead and copper in drinking water. Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage.

The LCR was established in 1991, and has undergone various revisions. It has four basic requirements:

1) Require water suppliers to optimize their treatment system to control corrosion in customer's plumbing;
2) Determine tap water levels of lead and copper for customers who have lead service lines or lead-based solder in their plumbing system;
3) Rule out the source water as a source of significant lead levels; and,
4) If lead action levels are exceeded, require the suppliers to educate their customers about lead and suggest actions they can take to reduce their exposure to lead through public notices and public education programs.

The EPA Lead and Copper Rule has set drinking water standards with two levels of protection [EPA 1991; EPA 2000b].

- Action levels for lead of 15 ppb and copper of 1.3 ppm in more than 10% of customer taps sampled. An action level is the level for enforcement.
- The maximum contaminant level goal (MCLG) is zero. This is the level determined to be safe according to toxicological and biomedical considerations, independent of feasibility.

"If a water system, after installing and optimizing corrosion control treatment, continues to fail to meet the lead action level, it must begin replacing the lead service lines under its ownership" [EPA 2007].

Exceeding the action level alone is not a violation of the regulation. Public water systems are assigned a violation when they fail to perform actions required by the

	regulations. This happens after the action level is exceeded [EPA 2000b; EPA 2016b]. The use of lead solder and other lead-containing materials in connecting household plumbing to public water supplies was banned by EPA in June of 1988. • Many older structures, however, still have lead pipe or lead-soldered plumbing internally, which may substantially increase the lead content of water at the tap. • Regulations controlling the lead content of drinking water coolers in schools went into effect in 1989. Residents can buy inexpensive drinking water lead screening kits or hire professionals to test their water. For further information, call the EPA Safe Drinking Water Hotline toll-free at 1-800-426-4791 or visit https://www.epa.gov/safewater/. The U.S. Food and Drug Administration (FDA) level for bottled water is 5 ppb [FDA 2009].
Food	The FDA has set a number of action levels (enforceable) and levels of concern for lead in various food items. These levels are based on FDA calculations of the amount of lead a person can consume without ill affect [FDA 2014, 1995, and 1994]. For example, FDA has set an action level of 0.5 µg/dL for lead in in food products intended for use by infants and children and has banned the use of lead-soldered food cans [FDA 1994].
Paint	White house paint contained up to 50% lead before 1955. Federal law lowered the amount of lead allowable in paint to 1% in 1971. In 1977, the Consumer Products Safety Commission limited the lead in most paints to 0.06% (600 ppm by dry weight). Since 2009, the lead allowable in most paints is now 0.009%. Paint for bridges and marine use may contain greater amounts of lead.

Table 4: Standards and Regulations for Lead [ACCLPP 2012]				
Agency	**Media**			**Level**
ACGIH	Air (workplace)	150 µg/m^3 50 µg/m^3	TLV/TWA guideline for lead arsenate TLV/TWA guideline for other forms of lead	
ACGIH	Blood	30 µg/dL	Advisory; indicates exposure at TLV*	
CDC	Blood	5 µg/dL	Reference range upper value for children's BLL and reference BLL for adults (NIOSH).	
CPSC	Paint	90 ppm (0.009%)	Regulation; by dry weight. New standard for lead in household paint and similar surface coatings in children's products, and some furniture, for adult and children, children's toys, jewelry, etc.	
EPA	Air (ambient)	0.15 µg/m^3	Regulation; NAAQS; 3-month average	
EPA	Soil (residential)	400 ppm (play areas) 1200 ppm (non-play areas)	Soil screening guidance level; requirement for federally funded projects only (40 CFR Part 745, 2001]	
EPA	Water (drinking)	15 µg/L 0 µg/L	Action level for public supplies Non-enforceable goal; MCLG	
FDA	Food	Various	Action levels for various foods; example: lead-soldered food cans now banned	
FDA	Drinking water	5 ppb	Bottled water	

NIOSH	Air (workplace)	50 µg/m^3	REL (non-enforceable)
OSHA	Air (workplace)	50 µg/m^3 30 µg/m^3	Regulation; PEL (8-hour time weighted average) (general industry) Action level (averaged over an 8-hour period)
OSHA	Blood	40 µg/dL 50 µg/dL and 60 µg/dL	Regulation; cause for written notification and medical exam, and return to work after removal Regulation; cause for medical removal from exposure

ACGIH – American Council of Government and Industrial Hygienists
CDC – Centers for Disease Control and Prevention
CPSC – Consumer Products Safety Commission
EPA – Environmental Protection Agency
NIOSH – National Institute of Occupational Safety and Health
OSHA – Occupational Safety and Health Administration
BLL – Blood Lead Levels
MCLG – Maximum Contaminant Level Goal
NAAQS – National Ambient Air Quality Standards
PEL – Permissible Exposure Level
ppm – parts per million
REL – Recommended Exposure Limit
TLV/TWA – Threshold Limit Value/Time Weighted Average
µg/dL – micrograms per deciliter

* Note: BEI and TLV values are intended for use in the practice of industrial hygiene as guidelines or recommendations to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by anyone untrained in the discipline of industrial hygiene.

Key Points	• In 2012, CDC established a reference range upper value of 5 µg/dL for children's BLLs based on the NHANES estimate of 97.5% of the distribution. • Most states have reporting systems for BLLs. • OSHA has set required standards for an action level at 30 µg/m^3 averaged over an 8-hour workday. • EPA has set a standard for lead in the ambient air of 0.15 µg/m^3 averaged over a calendar quarter. • EPA has established 400 ppm for lead in bare soils in play areas and 1,200 ppm for non-play areas for federally funded projects. • EPA's action level for lead in water delivered to users of public drinking water systems is 15 µg/L. • FDA has set various action levels regarding lead in food items, cosmetics and bottled water. • Use of lead-soldered food cans is now banned in the U.S • CPSC has limited the lead content in paint intended for residential use and similar surface coatings in children's products, toys and jewelry to 0.009%.
Progress Check	6. The CDC's reference range upper value of 5 µg/dL for children's blood is A. The BLL below which no effects have been found. B. Also used by OSHA as a level of concern in workers. C. An advisory level for environmental and educational intervention. D. A regulatory level at which children must be immediately removed from any pre-1978 residences. *To review relevant content, see "Biologic Guidelines" in this section.* 7. What is EPA's action level for lead in water delivered to users of public drinking water systems in the United States? A. 0 µg/L.

B. 5 µg/L.
C. 10 µg/L.
D. 15 µg/L.

To review relevant content, see "Biologic Guidelines", "Workplace Air", "Drinking Water", "Food", and "Paint" in this section.

8. What are the OSHA Standards for Lead Levels?

A. Permissible exposure limit (PEL) of lead in the workplace.
B. The frequency and extent of medical monitoring triggered by the action level.
C. Other responsibilities of the employer.
D. All of the above.

To review relevant content, see "Workplace Air" in this section.

9. Which of the following is true regarding U.S. standards and regulations of lead levels?

A. CDC adopted a reference value for lead in children's blood.
B. OSHA set Permissible Exposure Limit (PEL) for lead in workplace air.
C. EPA established drinking water regulation for lead.
D. CPSC set a regulatory limit value for lead in paint.
E. All of the above.
F. None of the above.

To review relevant content, see "Biologic Guidelines", "Workplace Air", "Drinking Water", and "Paint" in this section.

What Is the Biological Fate of Lead in the Body?

Learning Objectives

Upon completion of this section, you will be able to

- Describe how lead is absorbed,
- Describe how lead is distributed in the body, and

	• Identify the half-life of lead in the blood.
Introduction	The absorption and biological fate of lead once it enters the human body depends on a variety of factors. The blood carries only a small fraction of total lead body burden, and serves as the initial receptacle of absorbed lead, distributing it throughout the body, making it available to other tissues. Absorbed lead that is not excreted is exchanged primarily among three compartments: 1. Blood, 2. Mineralizing tissues (bones and teeth), which typically contain the vast majority of the lead body burden, and 3. Soft tissue (liver, kidneys, lungs, brain, spleen, muscles, and heart). These compartments, and the dynamics of the exchange between them, are discussed below.
Lead Absorption	Lead absorption depends on a variety of factors, including particulate size, route of exposure, nutritional status, health, and age of the individual. • Lead absorption can be impacted by route of exposure and is inversely proportional to the exposure particle size. For example, exposure to lead dust (respiratory route) may result in higher absorption than exposure to the equivalent amount of lead from chips (digestive route) of higher lead content paint. • Adults typically absorb up to 20% of ingested inorganic lead after a meal and up to 60-80% on an empty stomach [ATSDR 2010]. • Children absorb about 50% of ingested lead after a meal [ATSDR 2010] and up to 100% on an empty stomach. • Most inhaled lead in the lower respiratory tract is absorbed.

- Most of the lead that enters the body is excreted in urine or through biliary clearance (ultimately, in the feces).

The chemical form of lead or lead compounds entering the body is also a factor for the absorption and biological fate of lead.

- Inorganic lead, the most common form of lead, is not metabolized in the liver.
- Nearly all organic lead that is ingested is absorbed.
- Organic lead compounds (those found in leaded gasoline and additives sold in the United States in the past) are metabolized in the liver.

Lead in the Blood	Although the blood generally carries only a small fraction of total lead body burden, it does serve as the initial receptacle of absorbed lead and distributes lead throughout the body, making it available to other tissues (or for excretion). • The half-life of lead in adult human blood has been estimated as 28 days [Griffin et al. 1975, as cited in ATSDR 2010] to 36 days [Rabinowitz et al. 1976, as cited in ATSDR 2010]. • Approximately 99% of the lead in blood is associated with red blood cells; the remaining 1% resides in blood plasma [Everson and Patterson 1980 as cited in ATSDR 1999; EPA 1986b; DeSilva 1981]. • The higher the lead concentration in the blood, the higher the percentage partitioned to plasma. This relationship is curvilinear — as blood lead levels (BLLs) increase, the high-end plasma level increases more. • On average, it requires slightly more than 1 year for children enrolled in case management with BLLs ≥10 micrograms per deciliter (µg/dL) to decline to <10 µg/dL [Dignam et al. 2008]. The Blood Lead Level is the most widely used measure of lead exposure. These tests, however, do not measure total body burden of lead—they tend to be more reflective of recent or ongoing exposures (see "*Clinical Assessment–Diagnostic Tests and Imaging*" section).
Lead in Mineralizing Tissues (Bones and Teeth)	The bones and teeth of adults contain about 94% of their total lead body burden; in children, that figure is approximately 73% [Barry 1975, as cited in ATSDR 2010]. • Lead in mineralizing tissues is not uniformly distributed. It tends to accumulate in bone regions undergoing the most active calcification at the time of exposure.

- Known calcification rates of bones in childhood and adulthood suggest that lead accumulation will occur predominately in trabecular bone during childhood, and in both cortical and trabecular bone in adulthood [Auf der Heide and Wittmets 1992 as cited in ATSDR 2010].

Two physiological compartments appear to exist for lead in cortical and trabecular bone [ATSDR 2010]:

- Inert component stores lead for decades, and
- Labile component readily exchanges bone lead with the blood.

Under certain circumstances, however, this apparently inert lead will leave the bones and reenter the blood and soft tissue organs.

- Bone-to-blood lead mobilization increases during periods of

  - Advanced age,
  - Broken bones,
  - Chronic disease,
  - Hyperthyroidism,
  - Immobilization (bedridden, etc.),
  - Kidney disease,
  - Lactation [Landrigan et al. 2002b],
  - Menopause,
  - Physiologic stress, and
  - Pregnancy.

  Calcium deficiency exacerbates, or worsens, bone-to-blood lead mobilization in all of the above instances.

- Consequently, the normally inert pool poses a special risk because it is a potential endogenous source of lead that can maintain BLLs long after exposure has ended.

Implications of Biological Fate	Symptoms or health effects can also appear in the absence of significant current exposure because lead

	from past exposures can accumulate in the bones (endogenous source). • In most cases, toxic BLLs reflect a mixture of current exposure to lead and endogenous contribution from previous exposure. • An acute high exposure to lead can lead to high short-term BLLs and cause symptoms of acute lead poisoning. It is important that primary care physicians: • Evaluate a patient with potential lead poisoning, • Examine potential current and past lead exposures, • Look for other factors that affect the biokinetics of lead (such as pregnancy or poor nutrition), and • Rule out lead poisoning in cases of unexplained seizures or coma.
Key Points	• Children absorb a higher percentage of ingested lead than adults. • Once in the bloodstream, lead is primarily distributed among three compartments —blood, mineralizing tissue, and soft tissues. The bones and teeth of adults contain more than 95% of total lead in the body. • In times of stress (particularly pregnancy and lactation), the body can mobilize lead stores, thereby increasing the level of lead in the blood. • The half-life of lead in adult human blood has been estimated as 28 days. • The body accumulates lead over a lifetime and normally releases it very slowly. • Both past and current elevated exposures to lead increase patient risks for adverse health effects from lead.
Progress Check	10. Lead absorption depends on a variety of factors, including: A. Particulate size, route of exposure, and income and age of the parents. B. Nutritional and health status, educational level, and age of the individual.

C. Place of residence, educational level, and income the parents.
D. Particulate size, route of exposure, nutritional status, health, and age of the individual.

To review relevant content, see "Lead in the Blood" in this section.

11. Which of the following answer choices best describes where lead is distributed once it enters the body?

    A. Blood, sweat, and tears.
    B. Soft tissues and bones only.
    C. Blood, mineralizing tissue, and soft tissues.
    D. Teeth and long bones only.

    To review relevant content, see "Introduction" "Lead in the Blood" and *"Lead in Mineralizing Tissue (Bones and Teeth)" in this section.*

12. What is the approximate half-life of lead in the blood of an adult?

    A. Seven days.
    B. Twenty-eight days.
    C. Three to six months.
    D. One year.

    To review relevant content, see "Lead in the Blood" in this section.

What Are Possible Health Effects from Lead Exposure?

Learning Objectives

Upon completion of this section, you will be able to

- Describe how lead affects adults and children,
- Describe what is the most sensitive organ system for lead exposure in children, and
- Specify that there is no identified threshold or safe level of lead in blood.

Introduction

Blood lead concentrations have decreased dramatically in U.S. children over the past 4 decades. However, too many children still live in housing with deteriorated lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems [AAP 2016; ACCLPP 2012].

The Exposure-Disease Model

No matter how toxic, no chemical can harm a person (child, adult, or both) unless *exposure* occurs. After a sufficient level of exposure (dose) to the chemical, biologic uptake, target organ contact, and biologic change can occur, all of which can lead to disease or other effects [ATSDR 2012; ATSDR 2013].

Steps that must occur for an environmental toxicant to cause disease.

- Environmental contamination (potential exposure): the exposure source and how the contaminant disperses in the environment.
- Exposure: For a toxicant to cause disease, exposure must occur. Exposure occurs through an *exposure pathway* between the contaminant in the physical environment and the exposed person.
- Biologic uptake: the process by which the transfer of substances from the environment to plants, animals, and humans occurs.
- Absorbed dose: how much of a toxicant is absorbed after an exposure occurs.
- Biologic changes: the chemical changes causing damage to tissues following a toxic exposure and an absorbed dose.
- Target organ: the organ or organs affected by an exposure to the toxicant. The "critical organ" is the most sensitive organ.
- Clinical disease: physical signs and symptoms resulting from a sufficiently absorbed toxicant dose.

Exposure Pathway

For a toxicant to cause disease, exposure must occur. Exposure occurs through an *exposure pathway* between

the contaminant in the physical environment and the exposed person.

An exposure pathway has five parts.

1. A source of contamination, such as an abandoned mine or industrial emissions.
2. An environmental medium and transport mechanism, such as water or movement through a groundwater aquifer.
3. A point of exposure, such as a private well.
4. A route of exposure, such as
    - eating,
    - drinking,
    - breathing,
    - touching,
    - transplacental exposure, and/or
    - intravenous exposure.
5. A receptor population, such as people potentially or actually exposed.

When all five parts are present, the exposure pathway is termed "a completed exposure pathway" [ATSDR 2005].

Lead serves no useful purpose in the human body. Its presence in the body can lead to toxic effects, regardless of age, gender, or exposure pathway.

The nervous system is the most sensitive organ system for lead exposure in children.

- Lead toxicity can affect every organ system.
- On a molecular level, proposed mechanisms for toxicity involve fundamental biochemical processes. These include lead's ability to inhibit or mimic the actions of calcium (which can affect calcium-dependent or related processes) and to interact with proteins (including those with sulfhydryl, amine, phosphate, and carboxyl groups) [ATSDR 2010].
- Lead's high affinity for sulfhydryl groups makes it particularly toxic to multiple enzyme systems including heme biosynthesis.
- The National Toxicology Program [NTP 2012], and the American Academy of Pediatrics [AAP 2016]

	have concluded that there is sufficient evidence for adverse health effects in children and adults at blood lead levels (BLLs) <5 micrograms per deciliter (µg/dL). • "There is no identified threshold or safe level of lead in blood" [AAP 2016]. • It is important to control or eliminate all sources of lead in children's environments to prevent exposure. The sections below describe specific health effects for population groups and major organ systems and functions. Some of the information in the population group is repeated in the organ system specific sections.
Children	From 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration 5 µg/dL (≥ 50 ppb), which represents about 535,000 U.S. children 1 to 5 years of age [AAP 2016]. • In children, there is no identified threshold or "safe" blood lead level below which no risk of poor developmental or intellectual function is expected. Data from the NTP [2012] showed that the effect of concurrent BLLs on IQ may be greater than currently believed. Lead inhibits the bodies of growing children from absorbing iron, zinc and calcium, minerals essential to proper brain and nerve development. • Children often show no signs of lead toxicity until they are in school, even as late as middle school, as expectations for academic achievement increase. • The practicing health care provider can distinguish overt clinical symptoms and health effects that come with high exposure levels on an individual basis. • However, lack of overt symptoms does not mean "no adverse impact." • Lower levels of exposure have been shown to have many subtle adverse health effects.

- Medical research has established a connection between early childhood lead exposure and future criminal activity, especially of a violent nature [Wright et al. 2008; Needleman et al. 2002; Needleman et al. 1996]. Numerous studies link elevated bone or blood lead levels with aggression, destructive and delinquent behavior, attention deficit hyperactivity disorder and criminal behavior [Wright et al. 2008; Braun et al. 2006; Needleman et al. 2004; Needleman et al. 2002; Nevin 2000; Bellinger et al. 1994].
- Acute exposure to very high levels of lead may produce encephalopathy in children.

While the immediate health effect of concern in children is typically neurological, it is important to remember that childhood lead poisoning can lead to health effects later in life, including

- ADHD, delayed learning, and lower IQ (which will impact school performance),
- Developmental problems with their offspring,
- Hypertension,
- Renal effects, and
- Reproductive problems.

Adverse health effects occur in children at BLLs <5 µg/dL [AAP 2016; NTP 2012]. The most common include

- Attention-related behavioral problems,
- Decreased cognitive performance, and
- Greater incidence of problem behaviors.

In pregnant women, there is sufficient evidence that maternal BLLs <5 µg/dL are associated with reduced fetal growth or lower birth weight. BLLs <10 µg/dL are associated with decreased postnatal growth, and concurrent BLLs <10 µg/dL in children are associated with

- Reduced head circumference,
- Height, or

	• Other indicators of growth and delayed puberty [NTP 2012]. There is inadequate evidence for an association between BLLs <10 µg/dL and cardiovascular effects in children of any age, or renal function in children <12 years of age [NTP 2012]. BLLs in this range may not predict poor outcomes for individual children, but are important predictors at the population level. It must be emphasized that **there is no known blood lead level for children** without some level of risk for some of the adverse neurological effects of lead in children.
Adults	The neurological effects in an adult exposed to lead as an adult can be neuropathy, and may be different from those of an adult exposed to lead as a child when the brain was developing (more information for adults in following sections). • Childhood neurological effects, including attention deficit hyperactivity disorder (ADHD), may persist into adulthood. • Lead-exposed adults may also experience many of the neurological symptoms experienced by children, but shown at higher blood lead levels. Other effects are reduced sperm count and hypertension [NTP 2012]. However, sufficient evidence shows that BLLs <5 µg/dL are associated with decreased renal function and that BLLs <10 µg/dL are associated with increased blood pressure and hypertension [NTP 2012].

Pregnant Women	Sufficient evidence shows that maternal BLLs <5 µg/dL are associated with reduced fetal growth or lower birth weight [NTP 2012]. Pregnant women who were lead-exposed as adults may also experience many of the neurological symptoms experienced by children, although at higher blood lead levels. Some women may develop eclampsia and pre-eclampsia with pregnancy. Maternal blood lead levels may be important predictors of the risk of developing eclampsia and pre-eclampsia [NTP 2012]. There is sufficient evidence showing that BLLs <5 µg/dL are associated with decreased renal function and that BLLs <10 µg/dL are associated with increased blood pressure and hypertension [NTP 2012].

Neurological Effects	Lead exposure has been linked with various types of brain damage. These include • Problems with thinking (cognition); • Difficulties with organizing actions, decisions, and behaviors (executive functions); • Abnormal social behavior (including aggression); and • Difficulties in coordinating fine movements, such as picking up small objects (fine motor control) [Cecil et al. 2008]. Sufficient evidence in children shows that BLLs <5 µg/dL are associated with increased diagnosis of attention-related behavioral problems, greater incidence of problem behaviors, and decreased cognitive performance. This is indicated by • Decreased IQ, • Lower academic achievement, and • Reductions in specific cognitive measures [NTP 2012]. Lead causes activation of protein kinase C (PKC) and binds to PKC more avidly than calcium (its physiologic activator). This creates problems with neurotransmitter release. Alteration of PKC function also affects second-messenger systems within the cell which may lead to future changes in gene expression and protein synthesis. A large body of evidence associates a reduction in IQ performance and other neuropsychological defects with BLLs <10 µg/dL, including reduced hearing [Landrigan and Etzel 2014; NTP 2012; ATSDR 2010; Lanphear et al. 2005]. • Neurological adverse effects of lead in children have been documented at exposure levels once thought to cause no harmful effects, including those <10 µg/dL [Canfield 2003; CDC 1997a] and <5 µg/dL [NTP 2012; Lanphear et al. 2005]. • Low doses of lead can cause a broad range of functional problems such as loss of self-control, shortened attention span and a host of learning

disorders that often cause lead-exposed children to perform poorly in school and ultimately to drop out [Bellinger 2008a; Bellinger 2008b; Chen et al. 2007; Wilson et al. 2006; Lanphear et al. 2005].
- Because otherwise asymptomatic individuals may experience neurological effects from lead exposure, clinicians should have a high index of suspicion for lead exposure, especially in the case of children with developmental delays.

Children suffer neurological effects from lead at much lower blood lead levels than adults.

- Subclinical neurological effects may occur at lower BLLs — at or below the regulatory standard of 10 µg/dL, in some cases — and it may not be possible to detect them on clinical examination at the time of the exposure or peak BLLs. Children often show no signs of lead toxicity until they are in school, even as late as middle school, when expectations for academic achievement increase.
- Some studies have found, for example, that for every 10 µg/dL increase in BLLs, children's IQ was found to be lowered by 4 to 7 points [Winneke et al. 1990 as cited in AAP 1993; Fulton et al. 1987; Landsdown et al. 1986; Hawk et al. 1986; Schroeder et al. 1985; Yule et al. 1981].
- Evidence shows that ADHD and hearing impairment in children increase with increasing BLLs, and that lead exposure may disrupt balance and impair peripheral nerve function [ATSDR 2010].

In children, acute exposures leading to very high blood lead levels (> 70 µg/dL), may produce encephalopathy and other accompanying signs of

- Ataxia,
- Coma,
- Convulsions,
- Death,
- Hyperirritability, and
- Stupor.

The BLLs associated with encephalopathy in children vary from study to study, but BLLs of 70-80 µg/dL or greater appear to indicate a serious risk. Even without encephalopathy symptoms, these levels are associated with increased incidences of lasting neurological and behavioral damage [ATSDR 2010].

In adults, lead encephalopathy may occur at extremely high BLLs, *e.g.*, 460 µg/dL [Kehoe 1961 as cited in ATSDR 2010].

- Precursors of encephalopathy may occur at lower BLLs, such as
    - Dullness,
    - Irritability,
    - Loss of memory,
    - Muscular tremor, and
    - Poor attention span.

Less severe neurological and behavioral effects have been documented in lead-exposed workers with BLLs ranging from 40 to 120 µg/dL [ATSDR 2010]. These effects include

- Decreased libido,
- Depression/mood changes,
- Diminished cognitive performance,
- Diminished hand dexterity,
- Diminished reaction time,
- Diminished visual motor performance,
- Dizziness,
- Fatigue,
- Forgetfulness,
- Headache,
- Impaired concentration,
- Impotence,
- Increased nervousness,
- Irritability,
- Lethargy,
- Malaise,
- Paresthesia,
- Reduced IQ scores, and

- Weakness.

Late signs of lead intoxication such as slowed nerve conduction and forearm extensor weakness (wrist drop) are more typical signs in workers chronically exposed to high lead levels.

Childhood lead exposure is associated with region-specific reductions in adult gray matter volume. Affected regions include the portions of the prefrontal cortex and anterior cingulate cortex (ACC) responsible for executive functions, mood regulation, and decision-making [Cecil et al. 2008]. These neuroanatomical findings were more pronounced for males, suggesting that lead-related atrophic changes have a disparate impact across sexes. This analysis suggests that adverse cognitive and behavioral outcomes may be related to lead's effect on brain development producing persistent alterations in structure. Using a simple model, Cecil et al. [2008] found that blood lead concentration mediates brain volume and fine motor function. As shown in Figure 3 (model uses composite data to represent areas of significant volume loss overlaid with mean childhood blood lead concentrations), lead exposure appears to have a larger effect on brain volume loss in men than in women, which might help to explain the higher incidence of antisocial behaviors among men than women. Overall, these findings may explain why children and adults who have a history of lead exposure have behavioral and other problems, and support ongoing efforts to reduce childhood lead exposure in the United States and other countries. More research is needed to support and expand upon these findings.

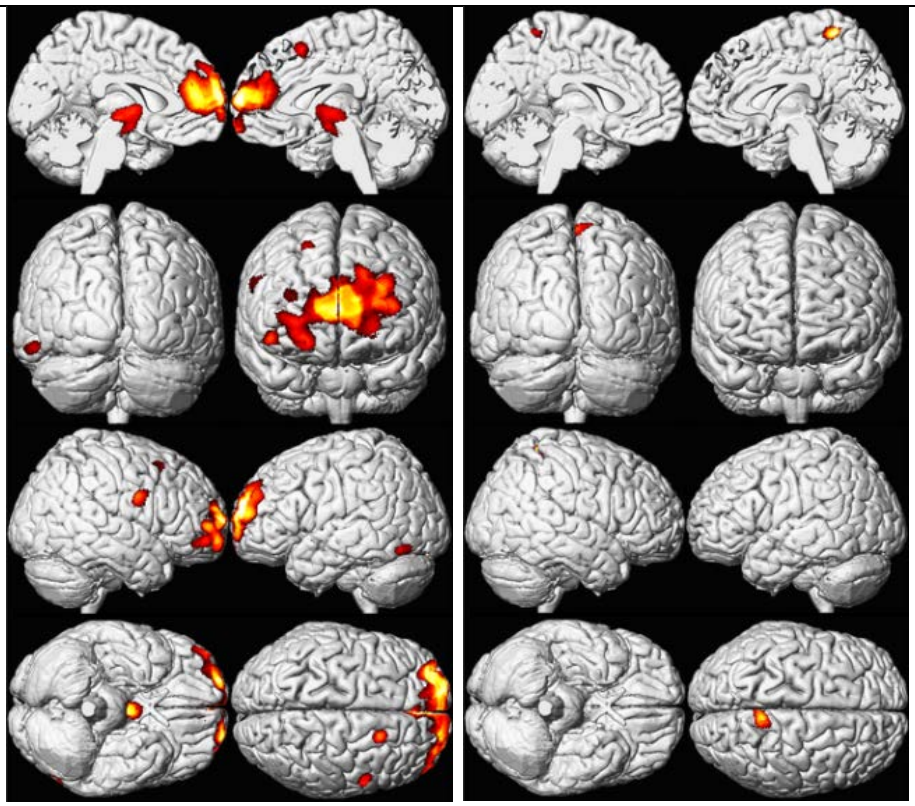

Figure 3. Sex Influences Brain Volume Loss Associated with Lead Exposure (Males left and Females right) [Cecil et al 2008].

A composite representation of regions with significant volume loss for Cincinnati Lead Study (CLS) participants associated with mean childhood blood lead concentrations is shown in red and yellow overlaid upon a standard brain template for males (n=83) and females (n=74). The model is adjusted for age at time of scanning and birth weight, using a cluster threshold of 700 voxels and unadjusted; $\leq$0.001 [Cecil et al 2008].

Renal Effects

The lowest blood lead level at which lead has an adverse effect on the kidney remains unknown.

Many studies show a strong association between lead exposure and renal effects [NTP 2012; ATSDR 2010]. Latent effects of childhood lead exposure include chronic advanced renal disease or a reduction in renal function in adulthood.

Impaired renal function and kidney disease are reported at high levels of lead exposure, as estimated mainly through concentrations of serum creatinine (SCr) and rates of creatinine clearance from the body. However, a change in the serum creatinine is not sensitive for an early diagnosis of acute kidney injury [Han et al. 2008].

Urinary levels of matrix metalloproteinase-9 (MMP-9), *N*-acetyl-β-D-glucosaminidase (NAG), and kidney injury molecule-1 (KIM-1) have been used as biomarkers for the detection of acute kidney injury [Han et al. 2008].

- "Combining all three biomarkers achieved a perfect score diagnosing acute kidney injury" [Han et al 2008].
- Urinary biomarkers allow diagnosis of acute kidney injury earlier than a rise in serum creatinine.

BLLs of 1.5 µg/dL due to chronic low-level lead exposure reduces kidney function in adolescents. Doubling the blood lead level was associated with significant reduction in the glomerular filtration rate. "Chronic, low-level lead exposure is an important risk factor for chronic renal failure" [Landrigan and Etzel 2014].

Some population-based studies show accelerated increases in serum creatinine or reductions in creatinine clearance at BLLs below 60 µg/dL [Tsaih et al. 2004; Kim et al. 1996; Hu et al. 1994; Staessen et al. 1992].

- There is sufficient evidence that blood BLLs <5 µg/dL are associated with adverse effects on kidney function in adults (increased risk of chronic kidney disease, and decreases in the estimated glomerular filtration rate and creatinine clearance, markers of kidney function) [NTP 2012].
- At <10 µg/dL there is increased blood pressure and increased risk of hypertension in adults [NTP 2012]. However, continued or repetitive exposures can cause toxic stress on the kidney that, if unrelieved, may develop into chronic and often irreversible lead nephropathy (*e.g.*, chronic interstitial nephritis).
- Lead nephrotoxicity is characterized by

- Proximal tubular nephropathy,
- Glomerular sclerosis, and
- Interstitial fibrosis [Zalups and Diamond 2004; Goyer 1985; Loghman-Adham 1997].

- Most documented renal effects for occupational workers have been observed in acute high-dose exposures and high-to-moderate chronic exposures (BLL >60 µg/dL).

Some patients show Fanconi-like syndrome [Landrigan and Etzel 2014] (Fanconi syndrome consists of multiple defects in renal proximal tubular reabsorption, causing glucosuria, phosphaturia, generalized aminoaciduria, and bicarbonate wasting).

This nephropathy is most commonly reported in children, and even though it is reversible, should be treated to prevent further kidney damage. Treatment of acute lead nephropathy in children appears to prevent the progression to chronic interstitial nephritis [Weeden et al. 1986].

It should be noted that lead-induced end-stage renal disease is a relatively rare occurrence in the U.S. population today.

- Renal disease can be asymptomatic until the late stages and may not be detected unless appropriate tests are performed.
- Because past or ongoing excessive lead exposure may also be a causative agent in kidney disease associated with essential hypertension [ATSDR 2010], primary care providers should closely follow the renal function of patients with hypertension and a history of lead exposure (See the "*Hypertension Effects"* section).

In patients with lead nephropathy, uric acid excretion is substantially lower than would be expected on the basis of their glomerular filtration rate (GFR). Studies have suggested enhanced reabsorption and reduced secretion of uric acid, explaining a high prevalence of gout [Kathuria et al. 2016]. In one study, more than 50% of

	patients suffering from lead nephropathy also suffered from gout [Bennett 1985 as cited in ATSDR 2010].
Hematological Effects	Lead inhibits the body's ability to make hemoglobin by interfering with several enzymatic steps in the heme synthesis pathway. • Specifically, lead decreases heme biosynthesis by inhibiting *d*-aminolevulinic acid dehydratase (ALAD) and ferrochelatase (FECH) activity. • Ferrochelatase, which catalyzes the insertion of iron into protoporphyrin IX, is quite sensitive to lead. • A decrease in the activity of this enzyme results in an increase of the substrate erythrocyte protoporphyrin (EP) in the red blood cells (also found in the form of ZPP—bound to zinc rather than to iron). • Also associated with lead exposure is an increase in blood and plasma d-aminolevulinic acid (ALA) and free erythrocyte protoporphyrins (FEP) [EPA 1986, as cited in ATSDR 2010]. EPA estimated the threshold BLL for a decrease in hemoglobin to be 50 µg/dL for occupationally exposed adults and approximately 40 µg/dL for children, although other studies have indicated a lower threshold (*e.g.*, 25 µg/dL) for children [EPA 1986 as cited in ATSDR 2010]. Lead induced anemia in adults is not a common occurrence. Recent data indicate that the EP level, which has been used in the past to screen for lead toxicity, is not sufficiently sensitive at lower levels of blood lead and is therefore not as useful as a screening test as previously thought (see "*Blood Lead Levels (BLLs)*" in the "*Clinical Assessment—Diagnostic Tests and Imaging*" section for further discussion of EP testing.). Lead can induce 2 types of anemia, often accompanied by basophilic stippling of the erythrocytes [ATSDR 2010].

- Acute high-level lead exposure has been associated with hemolytic anemia.
- Frank anemia is not an early manifestation of lead exposure, and is evident only when the BLL is significantly elevated for prolonged periods.
- In chronic lead exposure, lead induces anemia by both interfering with heme biosynthesis and by diminishing red blood cell survival.
- The anemia of lead intoxication is hypochromic and normo - or microcytic with associated reticulocytosis.

The heme synthesis pathway, on which lead has an effect, is involved in many other processes in the body, including

- Endocrine,
- Hepatic,
- Neural, and
- Renal.

The impact of biochemical and enzyme changes (and their possible sequelae) that may exist at lower blood lead levels remains unclear.

Endocrine Effects	Studies of children with high lead exposure have found that a strong inverse correlation exists between BLLs and vitamin D levels. • Lead impedes vitamin D conversion into its hormonal form, 1, 25-dihydroxyvitamin D, which is largely responsible for the maintenance of extra- and intra-cellular calcium homeostasis. • Diminished 1, 25-dihydroxyvitamin D, in turn, may impair cell growth, maturation, and tooth and bone development. • In general, these adverse effects seem to be restricted to children with chronically high BLLs (most striking in children with BLLs >62 µg/dL) and chronic nutritional deficiency, especially with regard to calcium, phosphorous, and vitamin D [Koo et al. 1991 as cited in ATSDR 2010]. Lead appears to have a minimal, if any, effect on thyroid function.
Gastrointes-tinal Effects	In severe cases of lead poisoning, children or adults may present with severe cramping abdominal pain (colic-like pain), which may be mistaken for an acute abdomen or appendicitis. Lead colic is a symptom of chronic lead poisoning and is associated with obstinate constipation.

Cardiovascular Effects	A few population studies have shown a possible connection between lead exposure and other cardiovascular disorders including • Ischemic coronary heart disease, • Cerebrovascular accidents, and • Peripheral vascular disease [Vaziri and Gonick, 2008]. Several epidemiological and clinical studies have found a link between chronic lead exposure and elevated blood pressure [Vaziri and Gonick, 2008]. Hypertension is a complex condition with many different causes and risk factors, including family history, age, weight, diet, and exercise habits. • Lead exposure is one factor of many that may contribute to the onset and development of hypertension. • Although low to moderate lead level exposures (BLLs <30 µg/dL) show only a low degree of association with hypertension, higher exposures (primarily seen in occupational settings) increase the risk for hypertensive heart disease and cerebrovascular disease as latent effects. • One study found that adults who experienced lead poisoning as children had a significantly higher risk of hypertension 50 years later (relative to control adults without childhood lead exposure) [Hu 1991 as cited in ATSDR 2010]. The association has been shown in population-based studies with BLLs below 10 µg/dL. Data supports an association between lead exposure and elevations in blood pressure [Schwartz 1995 as cited in ATSDR 2010; Hu et al. 1996; Korrick et al. 1999; Victery et al. 1988].

Reproductive Effects	Reproductive effects examined in the literature include • Sperm count, • Fertility, and • Pregnancy outcomes. While several studies have implicated lead as contributing to reproductive and developmental effects, these effects have not been well-established at low exposure levels. *Male Reproductive Effects* Recent reproductive function studies in humans suggest that current occupational exposures may decrease sperm count totals and increase abnormal sperm frequencies [NTP 2012]. • In men, there is sufficient evidence that BLLs ≥15 µg/dL are associated with adverse effects on sperm or semen. • It is unclear how long these effects may last in humans after lead exposure ceases. *Fertility* There is sufficient evidence that BLLs <10 µg/dL show adverse health effects on reproduction in adult women, and BLLs ≥20 µg/dL are associated with delayed conception time [NTP 2012]. *Pregnancy Outcomes* Prenatal lead exposure has known influences on maternal health and infant birth and neurodevelopmental outcomes [CDC 2010]. Recent National Health and Nutrition Examination Survey (NHANES) estimates suggest that almost 1% of women of childbearing age (15-44 years) have BLLs greater than or equal to 5 µg/dL [CDC 2010]. As documented in the CDC guidelines for the identification and management of lead exposure in pregnant and lactating women

(https://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf), there is evidence that maternal lead exposure during pregnancy can cause fetal lead exposure and can adversely affect both maternal and child health across a wide range of maternal exposure levels.

There is consistent evidence that the risk for spontaneous abortion is increased by maternal exposure to high levels of lead (*e.g.,* occupational exposures) [Hertz-Picciotto 2000].

Borja-Aburto [1999] showed a statistically significant dose-response relationship between maternal BLLs and risk for spontaneous abortion at lower levels of exposure (0 to 30 µg/dL).

The previous lack of evidence for an association at these low-to-moderate BLLs may be due to methodologic deficiencies in these studies, such as small sample sizes, lack of control for confounding, problems in case ascertainment, and/or limitations in exposure assessment [Hertz-Piccioto 2000].

- The strongest evidence to date is a prospective study of pregnant women in Mexico City.
- This study addressed most of the deficiencies of the prior studies and demonstrated a statistically significant dose-response relationship between maternal BLLs (average 11.0 µg/dL) and risk for spontaneous abortion [Borja-Aburto et al. 1999].

There is also limited evidence that maternal BLLs <10 µg/dL are associated with preterm birth and spontaneous abortion [NTP 2012].

Developmental Effects	Developmental effects examined in the literature include pregnancy outcomes (*e.g.*, premature births and low birth weights), congenital abnormalities, and post-birth effects on growth or neurological development. • Increasing evidence indicates that lead, which readily crosses the placenta, adversely affects fetal viability as well as fetal and early childhood development. • Prenatal exposure to low lead levels (*e.g.*, maternal BLLs of 14 µg/dL) may increase the risk of reduced birth weight and premature birth [ATSDR 2010]. • Lead is an animal teratogen, but the available data are inadequate to establish the presence or absence of an association between maternal lead exposure and major congenital anomalies [CDC 2010]. In a retrospective study, a higher proportion of learning disabilities were found among school-aged children with biological parents who had lead poisoning as children 50 years previously [Hu 1991].

Other Potential Effects	*Lower Bone Mineral Density (BMD)* Lead has been linked to problems with the development and health of bones. At high levels, lead can result in slowed growth in children. There is a growing body of scientific literature that supports a role of lead exposure in the development of osteoporosis. Rat studies have found that lead exposure is associated with decreased bone mineral density (BMD). However, human studies are limited. Lead-exposed animals had decreased bone mass that resulted in bones that were more susceptible to fracture. Lead decreased osteoblastic cell numbers leading to a depression of bone formation. Accompanying this, lead exposure elevated sclerostin protein levels in the skeleton, and correspondingly reduced levels of β-catenin and Runx2 in stromal precursor cells. Lead also increased skeletal expression of peroxisome proliferator-activated receptor-γ (PPAR-γ). These results indicate a shift in mesenchymal differentiation wherein lead promoted enhanced adipogenesis and decreased osteoblastogenesis. Substantial differences in bone marrow composition were observed, highlighted by an increase in adipocytes [Beier et al. 2013]. Human studies have shown both positive associations between BMD and blood lead levels in children (i.e., the higher the BMD, the higher the blood lead level) [Campbell et al. 2004] and negative [associations] in adults [Campbell and Auinger 2007; Nash et al. 2004], but these results have not allowed inferences about the likely causal direction of this relation [Theppeang et al. 2008]. Children with high lead exposure (mean, 23.6 µg/dL BLL), had a significantly higher BMD than did children with low lead exposure (mean, 6.5 µg/dL BLL). This may reflect a true phenomenon because lead exposure has been reported to accelerate bony maturation by inhibiting the effects of parathyroid hormone–related peptide. Accelerated maturation of bone may ultimately

result in a lower peak BMD being achieved in young adulthood, thus predisposing to osteoporosis in later life.

Future studies need to investigate this proposed model [Campbell et al. 2004].

"There could be potential effect modification by BMD on the relations between blood and bone lead levels, an analysis directly relevant to hypotheses regarding BMD and release of lead from bone. A growing literature suggests that genetic polymorphisms may modify the toxicokinetics of lead in bone and blood" (i.e., VDR, APOE) [Theppeang et al. 2008].

Analysis of NHANES III data showed a significant inverse association between lead exposure and BMD, but because of NHANES's cross sectional design, caution should be taken in drawing conclusions from these findings alone.

Dental Health

Researchers are currently investigating the impacts of lead on dental health. One study found pre- and perinatal exposure to lead increased prevalence of caries in rat pups by almost 40% [Watson et al. 1997].

Cancer

EPA has classified elemental lead and inorganic lead compounds as Group 2B: probable human carcinogens, revised in 2011 [EPA 2013b]. This classification is based in part on animal studies, which have been criticized because the doses of lead administered were extremely high.

The NTP [2004] classified lead and lead compounds as "reasonably anticipated to be a carcinogen".

Key Points

- Adverse health effects may occur in children and adults at BLLs <5 µg/dL.
- In children, health effects generally occur at lower BLLs than in adults.

		• There is no identified threshold or safe level of lead in blood. • The nervous system is the most sensitive organ system for lead exposure in children. • The developing nervous system of a child can be affected adversely at BLLs of ≤5 µg/dL. Subclinical effects may be present, but may not be detectable during clinical examination. • There is a wide range of neurological effects associated with lead exposure, some of which may be irreversible. • Lead exposure can lead to renal effects such as Fanconi-like syndromes, chronic nephropathy, and gout. • Most lead-associated renal effects or diseases result from ongoing chronic exposure, present high acute exposure, or as latent effects from past chronic lead exposure. • Lead inhibits several enzymes critical to the synthesis of heme, causing a decrease in blood hemoglobin. • Lead interferes with a hormonal form of vitamin D which affects multiple processes in the body, including cell maturation and skeletal growth. • Lead exposure may lead to increased risk for hypertension and its sequelae. • Evidence suggests an association between lead exposure and certain reproductive and developmental outcomes. • Maternal blood lead, from exogenous and endogenous sources, can cross the placenta and pose a risk to the fetus. • Other potential health effects of lead are currently being studied.
Progress Check	13.	How do lead's effects **DIFFER** between children and adults? A. Effects in children are more likely to be reversible. B. Adults suffer more neurological damage. C. Children are less likely to become anemic.

D. Children suffer neurological effects from lead at much lower blood lead levels than adults.

To review relevant content, see "Children", "Adults" "Neurological Effects", "Hematological Effects" and "Other Potential Effects" in this section.

14. Lead toxicity can affect

A. The kidneys.
B. IQ and neurological development in children.
C. Sperm count.
D. All of the above.

To review relevant content, see "Neurological Effects," "Children," "Renal Effects," and "Reproductive Effects" in this section.

15. What is the most sensitive organ system for lead exposure in children?

A. Skeletal system (Long bones and teeth).
B. Respiratory system.
C. Nervous system.
D. Renal system.

To review relevant content, see "Introduction", "Children", "Adults" and "Neurological System" in this section.

16. What is the identified threshold or safe level of lead in blood?

A. 15 µg/dL.
B. 10 µg/dL.
C. 5 µg/dL.
D. There is no identified threshold or safe level of lead in blood.

To review relevant content, see "Introduction" and "Children" and "Neurological Effects" in this section.

Clinical Assessment – Exposure History

Learning Objectives	Upon completion of this section, you will be able to • Describe how to take a screening exposure history for lead exposure, and • Identify lead exposure-related questions to ask during a child visit.
Introduction	Most environmental and occupational diseases either manifest as common medical problems or have nonspecific symptoms. Unfortunately, hazardous exposures rarely enter into the clinician's differential diagnosis. As a result, clinicians may miss the opportunity to make correct diagnoses that might influence the course of disease. A correct diagnosis may help stop exposure and might prevent disease in others by avoiding exposure [ATSDR 2015]. What can a clinician do to improve recognition of disease related to current or past exposures? • First, one must be suspicious and think about the possibility of environmental and occupational factors of disease. • Next, one needs to incorporate an exposure history questionnaire into clinical practice. *ATSDR Case Study in Environmental Medicine: Taking an Exposure History* https://www.atsdr.cdc.gov/csem/csem.asp?csem=33&po=0 illustrates the principles and practices involved in the development of a differential diagnosis that includes possible hazardous exposure related etiologies. Taking an exposure history may enable physicians to • Make more accurate diagnoses, • Influence the course of disease by stopping current exposure,

- Prevent disease in others by avoiding future exposure, and
- Prompt workplace evaluations and the protection of workers.

In the past, the Centers for Disease Control and Prevention (CDC) emphasized primary prevention, but also recommended screening blood lead levels (BLLs) in children to alert policymakers and others of potential lead contamination in communities.

Generally, sources of lead exposure were only identified and remediated after a child was identified with an elevated BLL, which is now a practice considered ineffective [ACCLPP 2012].

The strategy of identifying lead poisoning or elevated blood lead levels (BLLs) relied on detection in the child, relegating the child to the function of the proverbial 'canary in the coal mine' for

- Poor/contaminated housing,
- Contaminated water, and/or
- Tainted consumer products.

This strategy, which relies on identifying extant elevated BLLs, does not prevent the damage already incurred. Chelating agents can be used to treat overt lead poisoning, and possibly reduce the case fatality rate and other severe effects. However, chelating agents are not benign and can cause adverse health effects, especially when used by someone without expertise and experience treating lead poisoned patients. These agents have been demonstrated not to improve IQ or behavioral consequences of lead exposure [ACCLPP 2012]. Therefore, primary prevention is the most important and significant strategy [ACCLPP 2012].

The first step in evaluating a possibly lead-related health concern in a child is to take an environmental pediatric exposure history.

Screen all immigrant, refugee, and internationally-adopted children when they arrive in the United States,

	and for children <6 years old again 6 months after resettlement.
Screening Questions	The clinical setting allows little time for an extensive environmental pediatric exposure history. However, initial and subsequent well-child visits offer opportunities to provide parents and caregivers with educational materials on preventing exposures and actions to take if an exposure occurs. CDC [2012] recommends using screening questions. Written checklists completed by parents may be used to facilitate obtaining an exposure history. Examples of these checklists are the National Environmental Education Foundation's [NEEF] Pediatric Environmental History (0-18 Years of Age). *The Screening Environmental History*, and *Additional Categories and Questions to Supplement The Screening Environmental History*, 2005. Also available in Spanish. https://www.neefusa.org/resource/pediatric-environmental-history *ATSDR Case Study in Environmental History: Taking a Pediatric Exposure History* https://www.atsdr.cdc.gov/csem/csem.asp?csem=26&po=0 For a sick child whose illness might be environmentally related, the physician should consider an environmental agent as potentially related to the child's current illness, particularly when the illness does not follow a usual pattern or when more than one family member or a schoolmate is affected. Physicians should take two environmental medicine actions for every well-child who presents to an office or a clinic. 1. A routine screening history for potential environmental exposures.

2. Age-appropriate risk-based screening for lead poisoning, using the CDC's lead poisoning prevention guidelines [CDC 2012].

Table 5. Screening Questions for Children's Lead Exposure History
[modified from ATSDR 2013]

Any Age - First Visit	Where does your child live and spend most of his/her time? • Home, day care, school, and, • For working adolescents, the job setting may have unique environmental hazards. What is the age and condition of your home? • If the home was built prior to 1978, discuss risks of lead exposure from higher lead content paint. • If parents are unsure of the age, they can test paint with an instant lead paint tester from a hardware store. Are renovations planned or in progress? • If a parent is planning renovation, advise how to avoid higher lead content paint exposure. • If paint is old, peeling, or in poor repair, the parent should consider using a certified contractor. Does anyone in the family smoke? Is there exposure to second hand or third hand (residual tobacco) smoke (SHS & THS)? What are the occupations and hobbies of adults in the household? Is there an occupational exposure that could affect children's health? Is there a chance of take-home contamination from work-related toxicants on

	• Clothing, • Hair, • Skin, or • Shoes? Do you have concerns about environmental hazards in your home or in the surrounding neighborhood? • Lead in drinking water (check source of drinking water). • Lead in the ground or play areas. • Exposure to hazardous waste sites. Do you take herbal remedies or Ayurvedic (a system of health care native to the Indian subcontinent) medications? If so, which ones? Do you give any of these to your children? Do you use skin creams that could contain paints, pigments, or heavy metals? Do you use any of these on your children? Some folk remedy creams or cosmetics may contain lead. Other questions of interest: • Condition of household pets. • Past living conditions (international background is important). • Siblings or playmates diagnosed with lead poisoning. • Use of imported or glazed ceramics. Assess the nutritional status, diet, and dietary behaviors of young children.

Well Baby Visits	Are you breastfeeding? • If no, are you using water to mix with the formula? • If using water to mix with the formula, what water will you be using (tap water, bottled water, well water, etc.)? • If tap water, is it from the municipal water system? What type of water service delivery and home plumbing pipes are used (galvanized, etc.)? If well water, have you had it tested for the presence of contaminants, such as bacteria, lead, and nitrates?
Well Toddler and Young School-age Child Visit	Have there been any changes in your home surroundings or jobs? Where does the child spend most of his/her time?
Well Adolescent Visit	Does the adolescent work? If yes, what is the type of work? Does the work expose the adolescent to toxic chemicals, fumes, or dust, or does it involve excessive musculoskeletal stress or work with slicing machines? Is use of heavy or industrial machinery involved in the work? Is the adolescent involved in hobbies that involve lead (leaded glass, fishing gear (weights), home reloading of shotgun cartridges)? Does the adolescent consume illicit drugs or used them in the past? Examples: “huffing” (with intent to alter mood) of products that may contain or be contaminated with lead? Alcohol use (ask about source and storage of alcohol). Does the adolescent smoke or vape? Is there exposure to second hand smoke (SHS)?

Sick Child Visit - Temporal Relationship	In order to establish that lead exposure is the cause of an illness, it is necessary to ask if the exposure to the substance of concern occurred before the onset of the health condition. Timing and duration of exposure can be important in determining whether a negative health effect may result. If the exposure is known, it is important to ask how long and how often the child was exposed to lead (daily, weekly, monthly, etc.). It is also important to ask about the amount or concentration (how much).
Sick Child Visit - Are Others Affected?	Others similarly affected can point to a possible lead exposure-related cause at home, at child care, at school, or the workplace. For public health reporting purposes, the appropriate authorities must be notified if an illness is found to be related to a lead environmental exposure.
Sick Child Visit - Linking Exposure to Illness	After completing the screening exposure history and asking more specific exposure-related questions, the physician should then answer these questions to determine whether the illness might be lead exposure-related. • What is the child's specific health condition? • Is lead known to cause this type of health problem? • If so, what is the weight of scientific evidence linking that health condition to lead? • Did any other exposures occur that might be related to the identified signs and symptoms? If the answers to these questions, previous questions and the physical and laboratory findings point to a link between an illness and an exposure, the physician can consult with a specialist in pediatric environmental medicine as needed (see http://www.pehsu.net/).
Key Points	• Clinicians must be suspicious and think about the possibility of environmental and occupational factors of disease. • Clinicians need to incorporate an exposure history questionnaire into clinical practice. • The initial well-child visit presents an excellent opportunity to ask basic screening questions about

		common environmental hazards, including lead exposure. • For a sick child, the physician should consider an environmental agent as potentially related to the child's current illness, particularly when the illness does not follow a usual pattern or when more than one family member or a schoolmate is affected. • It is important to incorporate age-appropriate questions about lead hazards during other routine office visits. • Screen all immigrant, refugee, and internationally-adopted children when they arrive in the United States, and for children <6 years old again 6 months after resettlement. • Assess the nutritional status, diet, and dietary behaviors of young children.
Progress Check	17.	Which of the following statement(s) about taking screening exposure histories for children is/are true? A. It is necessary to ask all the screening questions at every visit. B. The physician should perform age-appropriate risk-based screening for lead poisoning during an initial well-child visit. C. There is no need to ask age-specific screening questions because all children are exposed equally. D. All of the above. *To review relevant content, see "Introduction", "Screening Questions", "Sick Child Visit-Temporal Relationship", "Sick Child Visit-Are Others Affected?" and "Sick Child Visit-Linking Exposure to Illness" in this section.*
	18.	As part of the exposure history, you should explore A. Possible lead exposure at parent's work. B. Household members' hobbies that might involve lead. C. Household use of imported home remedies and cosmetics.

D. All of the above.

To review relevant content, see "Introduction", "Screening Questions", "Sick Child Visit-Temporal Relationship", "Sick Child Visit-Are Others Affected?" and "Sick Child Visit-Linking Exposure to Illness" in this section.

Clinical Assessment - Signs and Symptoms

Learning Objectives

Upon completion of this section, you will be able to

- Name typical signs and symptoms consistent with lead toxicity,
- Describe how lead exposure dose and symptoms can vary, and
- Describe key features of the physical examination for patients exposed to lead.

Introduction

The patient assessment should include a review of systems for symptoms and signs as well as a complete physical examination of patients with potential exposure to lead, in addition to the environmental exposure history.

Primary health care providers can use the history, review of systems, and physical examination to establish a problem list. Then initial laboratory tests/imaging can be requested to systematically work through the differential diagnoses to come up with a diagnosis. This will be discussed in more detail in the next section.

Because children may have adverse health effects that may be subclinical or without overt clinical symptoms, as may occur with low blood lead levels, it is vital that primary care providers adopt a preventive approach to determine which of their patients may be at risk.

For the child with a history of a known lead exposure, with or without symptoms, concerned parents may visit their child's pediatrician or physician with worries that their child may become sick in the future. The parents

	may inquire about signs and symptoms associated with exposures.
Continuum of Signs and Symptoms	Typically, a sign is something the health care provider "sees" or "finds" during a physical exam. A symptom is experienced and reported by the patient. A review of systems is an inventory of specific body systems performed by the health care provider during the process of taking a medical history from the patient. It is designed to bring out clinical symptoms the patient may have overlooked, forgotten, or may not have realized were important enough to mention to the physician, but may, in fact, be key toward making an accurate diagnosis. Many patients who suffer from lead poisoning may be asymptomatic, hence the importance of exposure assessment and screening. A *continuum of signs and symptoms* can be seen depending on level (amount), frequency, and duration of lead exposure. However, this is not a clear-cut picture of how the cases present, but a guide to understanding how the different levels of exposure reflect in the presentation. Keep in mind that categorizing the signs and symptoms by exposure dose from "lowest to high" is somewhat artificial — the signs and symptoms generally become more noticeable as BLLs increase, and no specific BLL numbers can be assigned to exposure levels in the continuum, as symptoms may vary by individual. **Table 6. Continuum of Signs and Symptoms of Ongoing Lead Exposure** [ATSDR 2010]

Lowest Exposure Dose Signs and Symptoms: Impaired Cognitive Abilities/Subclinical Neuro/Psychoneuro/Neurobehavioral Findings (patient may appear asymptomatic)

- Decreased learning and memory
- Decreased verbal ability
- Early signs of hyperactivity or ADHD
- Impaired speech and hearing functions
- Lowered IQ

Low Exposure Dose Signs and Symptoms

- Irritability
- Lethargy
- Mild fatigue
- Myalgia or paresthesia
- Occasional abdominal discomfort

Moderate Exposure Dose Signs and Symptoms

- Arthralgia
- Constipation
- Difficulty concentrating/Muscular exhaustibility
- Diffuse abdominal pain
- General fatigue
- Headache
- Tremor
- Vomiting
- Weight loss

High Exposure Dose Signs and Symptoms

- Colic (intermittent, severe abdominal cramps)
- Encephalopathy—may abruptly lead to seizure, change in consciousness, coma, and death
- Paresis or paralysis

In interpreting this table, it is important to remember that some of the hematological abnormalities of lead poisoning are similar to those of other diseases or conditions.

- For example, in the differential diagnosis of microcytic anemia, lead poisoning can usually be ruled out by obtaining a venous blood lead

	concentration; if the BLL is less than 25 micrograms per deciliter (µg/dL), the anemia usually reflects iron deficiency or hemoglobinopathy [Hegazy et al. 2010]. • Other examples are the two rare diseases, acute intermittent porphyria and coproporphyria, that result in hematological abnormalities similar to those of lead poisoning. Children may appear to be asymptomatic at a low level lead exposure dose, but these levels may still impact the health of children and adults. With increasing exposure dose, the likelihood and severity of symptoms can be expected to increase. • Because of differences in individual susceptibility, symptoms of lead exposure and their onset may vary. • Impaired abilities may occur at BLLs ranging from 10 to 25 µg/dL and no threshold for these effects has been identified, whereas in symptomatic lead intoxication, BLLs generally range from 35 to 50 µg/dL in children and 40 to 60 µg/dL in adults [ATSDR 2010]. • Severe toxicity (high exposure dose) is frequently found in association with BLLs of 70 µg/dL or more in children and 100 µg/dL or more in adults. The importance for the clinician is to recognize ongoing lead exposure, interrupt that exposure, and treat the patient as appropriate. Only through an increased suspicion of lead exposure as the etiology of many nonspecific signs, symptoms, and common health conditions, can a diagnosis be made early so that preventive actions can take place.
Delayed or Misdiagnosis	It is important to keep in mind, that even a complete physical examination may not identify subtle neurological effects that may be associated with low-level lead exposure in children. The first signs of lead poisoning in children are often subtle neurobehavioral problems that adversely affect classroom behavior and social interaction.

	Failing to identify signs and symptoms of lead toxicity has led to misguided medical treatments. • Patients exhibiting neurological signs due to lead exposure may have been treated only for peripheral neuropathy or carpal tunnel syndrome, further delaying treatment for lead intoxication. • Failure to correctly diagnose lead-induced gastrointestinal distress has led to inappropriate abdominal surgery. • Current health effects (*e.g.,* neurological/developmental) resulting from past exposure, even without current exposure, may also need intervention (*e.g.* special education may be needed, finding and mitigating sources of exposure for the patient and others at risk for exposure may still be needed, etc.).
Physical Examination	The physical examination should include special attention to the following systems: • Cardiovascular, • Gastrointestinal, • Hematological, • Neurological, and • Renal systems. Health care providers should remember to • Carefully evaluate the nervous system, including behavioral changes, • Check blood pressure to evaluate whether the patient is hypertensive, and pay special attention to the renal system in those who are positive for hypertension, and • Check for a purplish line on the gums (lead line). This is rarely seen today, but if present, usually indicates severe and prolonged lead poisoning.

Figure 4. Lead lines on gingiva (Public domain)

With regard to children potentially exposed to lead, health care providers should be mindful that

- Hearing, speech, and other developmental milestones should be carefully evaluated and documented, and
- Nutritional status, diet, and dietary behaviors of young children should be assessed, since iron and calcium deficiencies are known to enhance the absorption of lead and to aggravate pica behavior.

Establish a Problem List

The problem list details the patient's most important medical information, which includes diagnoses, family history, and past tests and procedures. It will assist in the identification of an environmentally related condition. In other situations, the initial problem list may include only

- Signs,
- Symptoms, and
- Laboratory test results.

The physician who has experience with environmental toxicants may quickly suspect that a disease or syndrome (e.g. acute lead toxicity) is associated with a hazardous environmental exposure. The problem list should still be used, however, to keep the differential diagnosis broad in the beginning. Any and all specific exposures identified by the child's parents or caregiver(s) or suspected by a pediatrician should be listed.

Key Points

- Patients who suffer from lead poisoning may appear to be asymptomatic.

- Symptoms of lead toxicity and their onset may vary due to differences in individual susceptibility
- The first signs of lead poisoning in children are often subtle neurobehavioral problems that adversely affect classroom behavior and social interaction. Hearing, speech, and other developmental milestones should be carefully evaluated and documented.
- The physical examination alone will not always reveal when a patient is at risk for adverse health effects from elevated lead exposure
- A *continuum of signs and symptoms* can be seen depending on the level (amount), duration and frequency of lead exposure.
- Carefully evaluate the nervous system for subtle changes, including behavioral changes.
- Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
- Some of the health effects of lead exposure on the various organ systems are permanent and/or latent, and may appear after exposure has ceased.

Progress Check

19. Which of the following is not a typical sign or symptom of lead toxicity?

    A. Impaired speech and hearing functions.
    B. Decreased verbal ability.
    C. Respiratory distress.
    D. Decreased learning and memory.

    To review relevant content, see "Continuum of Signs and Symptoms" in this section.

20. Which of the following statements is true regarding the signs and symptoms of lead toxicity?

    A. Signs and symptoms will always be more noticeable with increasing BLLs.
    B. All children with low dose level exposure, will be asymptomatic.
    C. Categorizing the signs and symptoms by BLL from lowest to highest is very accurate.
    D. Symptoms of lead exposure and their onset may vary.

    To review relevant content, see "Introduction" in this section.

21. Which of the following statements regarding the physical examination and review of systems is true?

    A. Carefully evaluate the nervous system for subtle changes, including behavioral changes.
    B. Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
    C. Hearing, speech, and other developmental milestones must be carefully evaluated and documented.
    D. All of the above.

    To review relevant content, see "Physical Examination" in this section.

Clinical Assessment – Diagnostic Tests and Imaging

Learning Objectives	Upon completion of this section, you will be able to • Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure, and • Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.
Introduction	If lead exposure is suspected, a blood lead level (BLL) test should be performed. Oftentimes, recognition of lead exposure doesn't occur until the initial reporting of high blood lead levels (BLLs) by primary care providers. In 1991, CDC recommended universal blood lead level (BLL) testing for all children, in the absence of a statewide or local plan. Over the past 40 years, there has been a dramatic decline in the United States in BLLs. Findings from the most recent National Health and Nutrition Examination Survey (NHANES), 2007 – 2010, indicate that BLLs are continuing to decrease across all age and racial/ethnic groups in the United States. Despite progress in reducing BLLs among children overall, differences between the geometric mean (GM) BLLs of different racial/ethnic and income groups still persist. Based on the prevalence of elevated BLLs, local health departments or other relevant agencies may implement different testing guidelines, such as screening more frequently or at different ages. The Advisory Committee On Childhood Lead Poisoning Prevention [ACCLPP 2012] recommends that health care providers: • Follow local and state lead screening guidelines, • Screen children coming from other countries when they arrive in the United States, and

	• Screen neonates and infants born to women with lead exposure during pregnancy and lactation per earlier CDC guidance. Some communities may provide screening outside of the child's medical home (such as through the Women, Infants, and Children (WIC) program). It is not necessary for the clinician to duplicate those efforts, but he/she should verify that the screening was performed elsewhere before testing is deferred during the office visit. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 µg/dL (50 ppb), impair cognition [AAP 2016]. There is no identified threshold or safe level of lead in blood [AAP 2016, ACCLPP 2012]. Over the past several decades there has been a remarkable reduction in environmental sources of lead, improved protection from occupational lead exposure, and an overall decreasing trend in the prevalence of elevated BLLs in U.S. adults. As a result, the U.S. national BLL geometric mean among adults was 1.2 µg/dL during 2009-2010 [CDC 2013i]. The OSHA lead standard allows blood lead levels higher than what is currently recommended by CDC/NIOSH. Therefore, some workers may continue to experience elevated blood lead levels.
Blood Lead Screening for children	A 2005 guidance statement from the American Academy of Pediatrics [AAP 2005] summarized the history of lead screening and suggested that pediatricians screen according to local and state guidelines where they apply. Additionally, pediatricians should screen: • All non-Medicaid children in the absence of local and state guidelines, and • All immigrant, refugee, and internationally-adopted children when they arrive in the United States (regardless of age), due to their increased risk, as they may have been exposed to lead in their country of origin.

	In 2009 the Centers for Medicare and Medicaid Services (CMS) and the CDC recommended that local officials have the flexibility to develop lead screening strategies that reflect local risk for high blood lead levels. In 2013 CMS published guidelines for states interested in transitioning to targeted blood lead screening for Medicare/Medicaid eligible children. In addition to a national surveillance program, clinical testing for lead exposure must continue for the foreseeable future in order to identify those children for whom primary prevention measures have failed [ACCLPP 2012]. • BLL testing is currently required at 12 and 24 months for all Medicaid-enrolled children, unless the state has a Centers for Disease Control and Prevention and the Centers for Medicare and Medicaid Services (CDC/CMS) waiver indicating that children enrolled in Medicaid are not at higher risk for high BLLs than other children. • Testing will often occur during routine well-child care as recommended by the American Academy of Family Physicians (AAFP) and the American Academy of Pediatricians (AAP). • Children ≤72 months that missed recommended screening at a younger age should be screened at presentation. • Screening at 12 and 24 months satisfies the Healthcare Effectiveness Data and Information Set (HEDIS) measures. The CDC [2010] also recommends initial and follow-up screening of pregnant and lactating women, as well as for neonates and infants of women with BLLs ≥5 micrograms per deciliter (µg/dL).
Blood Lead Levels (BLLs)	Different tests have been used in the past to evaluate lead exposure and/or to gauge the effects of lead exposure. • Venous BLL testing is the most useful screening and diagnostic test for recent or ongoing lead exposure [ACCLPP 2012], and requires a phlebotomist trained in the specific methods and

	techniques involved with proper collection and processing of a specimen for blood lead level testing (to avoid lead contamination of the puncture site or the sample). • Direct measurement of lead in capillary blood samples are easier to collect, but have a high potential for lead contamination [CDC 1997a]. For this reason, this method is not recommended unless the collection method used, close attention to hand washing, and other strategies to reduce lead contamination are strictly followed. Confirmatory testing using a venous blood lead sample for all capillary and venous BLL results greater than or equal to the reference value should be performed [ACCLPP 2012]. • BLLs respond relatively rapidly to abrupt or intermittent changes in lead intake (for example, ingestion of higher lead content paint chips by children) and, for relatively short exposure periods, bear a linear relationship to those intake levels. • For individuals with high or chronic past exposure, however, BLLs often under-represent the total body burden because most lead is stored in the bone. Individuals can therefore have high body burden of lead with “normal” levels in the blood. • One exception is patients with a high body burden under physiological stressful circumstances whose BLLs may be elevated from the release of lead stored in bones. • Erythrocyte protoporphyrin (EP), commonly assayed as zinc protoporphyrin (ZPP), was previously considered the best test for screening asymptomatic children for lead exposure. However, it is not sufficiently sensitive at lower BLLs and therefore not as useful for screening as previously believed. • Hemoglobin (Hgb) screening was recommended in the past; however, if performed alone it is only sufficient to diagnose anemia (by definition), and does not specifically rule out iron deficiency

BLLs are continuing to decrease across all age and racial/ethnic groups in the United States.

- The average BLL for children 1-5 years of age was 1.9 µg/dL in 2002, down from 15.0 µg/dL in 1976-1980 (before leaded gasoline was banned for use in “on road” vehicles) [CDC 2005].
- The average BLL for adults 18-74 years of age was 14.2 µg/dL from 1976-80; in 1988-1991, the average BLL for adults was 3.0 µg/dL [CDC 1997b]; and the BLL geometric mean among adults was 1.2 µg/dL during 2009-2010 [CDC 2014].
- The difference between the geometric mean (GM) BLL of non-Hispanic black children (1.8 µg/dL) remains significant ($p<0.01$) compared with either non-Hispanic white (1.3 µg/dL) or Mexican American (1.3 µg/dL) children [CDC 2013h].
- Children belonging to families with a poverty income ratio (PIR) <1.3 have a significant GM BLL difference (1.6 µg/dL versus 1.2 µg/dL [$p<0.01$]), compared to families with a PIR ≥1.3. This also applies to those enrolled in Medicaid [CDC 2013h].

Current research continues to find that BLLs previously considered harmless can have harmful effects in adults, such as decreased renal function and increased risk for hypertension and essential tremor at BLLs <10 µg/dL.

In 2015, NIOSH designated 5 µg/dL (five micrograms per deciliter) of whole blood, in a venous blood sample, as the reference blood lead level for adults [CDC 2013h]. An elevated BLL is defined as a BLL ≥5 µg/dL. This case definition is used by the CDC's Adult Blood Lead Epidemiology and Surveillance program (ABLES tracks elevated BLLs among adults in the United States), the Council of State and Territorial Epidemiologists (CSTE), and CDC’s National Notifiable Diseases Surveillance System (NNDSS). Previously (i.e., from 2009 until November 2015), the case definition for an elevated BLL was a BLL ≥10 µg/dL. The U.S. Department of Health and Human Services recommends that BLLs among all adults be reduced to <10 µg/dL.

	During 2002-2011, ABLES identified 11,536 adults with very high BLLs (≥40 µg/dL). A very high BLL measured in >1 calendar year was defined as a persistent very high BLL. Among these adults, 2,210 (19%) had persistent very high BLLs, 1,487 (13%) had BLLs ≥60 µg/dL, and 96 had BLLs ≥60 µg/dL in >1 calendar year. Occupational exposures accounted for 7,076 adults with very high BLLs (91% of adults with known exposure source) and 1,496 adults with persistent very high BLLs [CDC 2013h]. In contrast to the CDC reference level, prevailing Occupational Safety and Health Administration (OSHA) lead standards allow workers removed from lead exposure to return to lead work when their BLL falls below 40 µg/dL. However, NIOSH recommends that the most current guidelines for management of lead exposed adults be implemented by the medical community at the current CDC/NIOSH reference BLL of 5 µg/dL [CDC 2013h]. The finding that many workers may have harmful BLLs, some that are present for >1 calendar year, is of grave concern. Adverse health effects associated with very high BLLs underscore the need for increased efforts to prevent lead exposure at workplaces and in communities [CDC 2013i]. An attempt should be made to identify and minimize lead exposures when BLLs indicate that they are occurring at any blood lead level above background population levels. If an adult has a BLL of 20 µg/dL, e.g., an unusual exposure is likely occurring and should be interrupted, if possible. This is especially important for fertile and pregnant females.
Confirmatory Testing of Children with BLLs Above the Reference Value	Given the uncertainty of individual blood lead test results, it is important to do confirmatory testing, especially for capillary blood samples that might be elevated due to residual lead on the skin at the puncture site. Collection tubes need to be confirmed “lead free”. The recommended schedule for confirmatory testing is summarized in Table 7 and includes

- All capillary and venous BLL results greater than or equal to the reference value must be confirmed within 1-3 months, and
- Children with BLLs ≥45 µg/dL or with symptoms of lead poisoning should have an immediate (within 48 hours) confirmatory test.

Table 7. Recommended Schedule for Obtaining a Confirmatory Venous Sample

Blood Lead µg/dL	Time to Confirmation Testing
≤ Reference value of 5*	1-3 months
6-44**	1 week–1 month
45-59	48 hours
60-69	24 hours
≥70	Urgently as emergency test

* ACCLPP 2012
** The higher the BLL on the screening test, the more urgent the need for confirmatory testing.

Adapted and updated from: *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials* [CDC 1997a].

Response actions should be initiated only after elevated BLLs are confirmed.

Imaging and Other Clinical Modalities

There are different clinical modalities available to further evaluate patients with elevated BLLs.

- Complete blood count (CBC) may be useful for patients with extensive lead exposure. In lead-exposed patients, the hematocrit and hemoglobin values may be slightly to moderately low in the CBC, and the peripheral smear may be either normochromic and normocytic or hypochromic and microcytic.

- There may be **basophilic stippling** in patients who have been significantly poisoned for a prolonged period.
- However, because these results are not specific to lead exposure, the CBC test is not as valuable for detecting lead exposure as the BLL and EP assays.

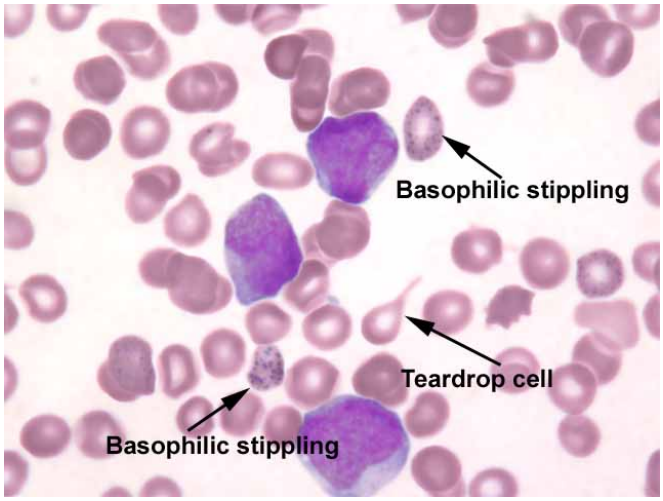

Figure 5. Basophilic stippling -Venous blood smear with basophilic stippling (Provided courtesy of ©Wadsworth Center, New York State Department of Health)

- A hypochromic, microcytic anemia should be appropriately differentiated from other causes, especially iron-deficiency anemia by the use of testing for iron, iron binding capacity, and ferritin.

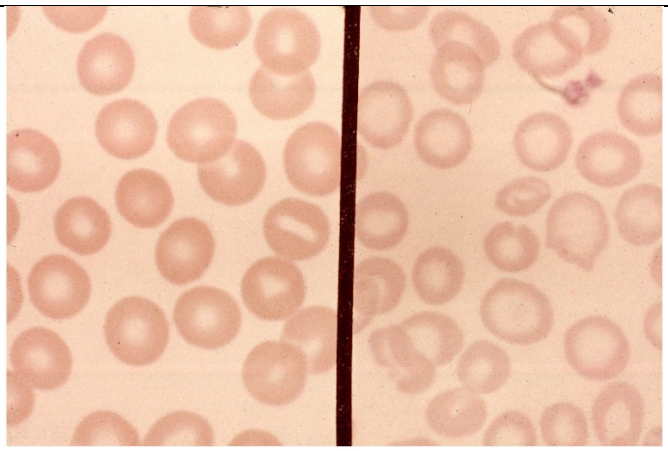

Normal red blood cells Microcytic anemia

Figure 6. Microcytic hypochromic anemia can be associated with lead poisoning (Public domain)

- Abdominal radiographs may show the presence of radiodense lead foreign bodies in the gastrointestinal tract. These are helpful in cases of acute ingestion (e.g., of lead sinkers, curtain weights, jewelry, or paint chips) or unusual persistence of high blood lead values. Shrapnel or bullet fragments within tissues can also be observed.
- Long bone radiographs can show “lead lines”. These are lines of increased density on the metaphysis (growth plate) of the bone, showing radiological growth retardation. This is not a routine procedure to identify lead poisoning, but a radiological finding of chronic exposure. See Figure 6 and Figure 7.
- Long bone radiographs are not recommended for diagnosing lead exposure [CDC 2002], however, they are useful to determine growth retardation.
- Because hair and fingernails are subject to external environmental contamination, assaying their lead content is an uncertain estimate of body burden and is not recommended [AAP 1993; CDC 2002].
- Second tier tests (such as neurobehavioral/psychological evaluation for children with indicative findings on exam) should be considered, as appropriate.

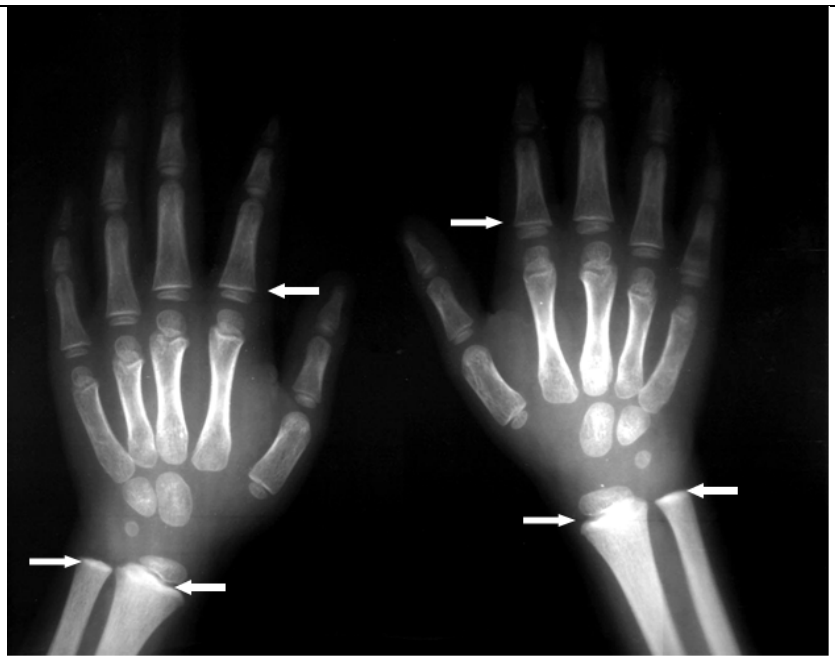

Figure 7. **Long Bone Radiograph of Hands** — “lead lines” shown as increased density on the metaphysis (growth plate) of the proximal segments of phalanges and distal segments of ulna and radius in a 5-year-old male with radiological growth retardation and BLL of 37.7 µg/dL (Photo courtesy of Dr. Celsa López, Clinical Epidemiologic Research Unit, IMSS, Torreón, México).

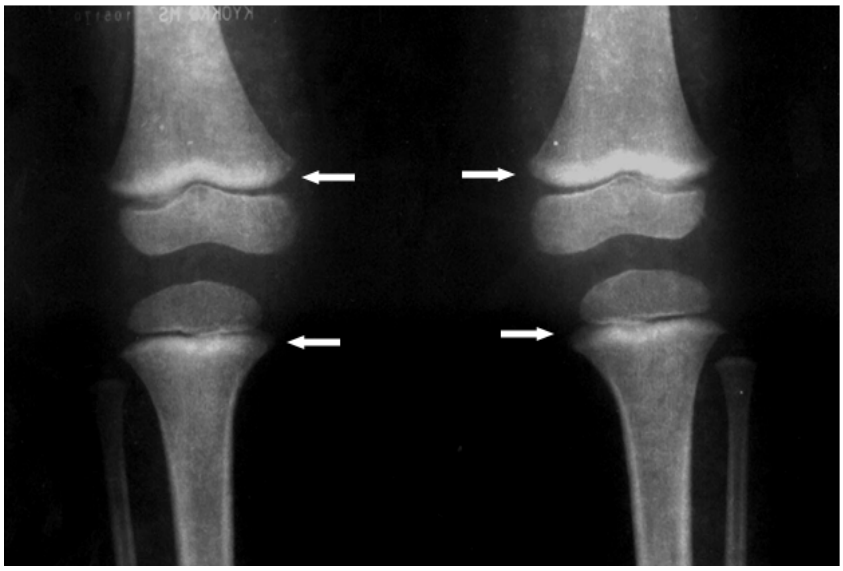

Figure 8. **Long Bone Radiograph of Knees** - “lead lines” in three-year old girl with BLL of 0.6 µg/dL. Notice the increased density on the metaphysis growth plate of

	the knee, especially in the femur (Photo courtesy of Dr. Celsa López, Clinical Epidemiologic Research Unit, IMSS, Torreón, México).
Key Points	• The best screening and confirmatory diagnostic tool for evaluating recent or ongoing lead exposure is the venous BLL test. • Pediatricians should screen for lead in all non-Medicaid children in the absence of local and state guidelines. • All immigrant, refugee, and internationally-adopted children should be screened for lead when they arrive in the United States. • Pregnant and lactating women should be screened for lead. • The CDC (2012) has updated the blood lead reference value to 5 µg/dL. • Using an EP or ZPP assay to screen children for lead exposure is not as useful as once believed, and not recommended. • Other tests may be appropriate for specific situations, such as abdominal radiographs to detect swallowed objects. • Secondary testing/imaging for signs of other health effects may also be useful.

Progress Check

22. What is the best screening and confirmatory diagnostic tool for evaluating recent or ongoing lead exposure in a child?

    A. EP/ZPP.
    B. Capillary BLL (finger stick).
    C. Venous BLL.
    D. Abdominal radiograph.

    To review relevant content, see "Blood Lead Levels" in this section.

23. In addition to screening according to local and state guidelines where they apply, pediatricians/primary health care providers should also screen which of the following populations?

    A. All non-Medicaid children in the absence of local and state guidelines.
    B. All immigrant, refugee, and internationally-adopted children when they arrive in the United States.
    C. Pregnant and lactating women.
    D. All of the above.

    To review relevant content, see "Blood Lead Screening" in this section.

24. What imaging and other clinical modalities may assist in the diagnosis of current or past lead exposed patients?

    A. Abdominal radiographs.
    B. Long bone radiographs.
    C. Hair assay.
    D. All of the above.
    E. None of the above.

    To review relevant content, see "Imaging and Other Clinical Modalities" in this section.

How Should Patients Exposed to Lead Be Treated and Managed?

Learning Objectives

Upon completion of this section, you will be able to

- Describe a management strategy for children whose blood lead levels are equal to or greater-than the current CDC reference value of 5µg/dL.

Introduction

"Preconception and prenatal counseling sessions present opportunities to prevent lead exposures that could lead to possibly devastating and lifelong effects."

Office of Surgeon General 2008

With the move away from a designated "level of concern," a new algorithm is needed to provide clinicians with guidance on responding appropriately to the lower range of BLLs. No blood lead threshold for adverse health effects has been identified in children.

Treatment and management strategies for children whose blood levels are equal to or greater than the reference value include nutritional education and intervention (as indicated), lead educational intervention, ongoing monitoring, and coordination with other organizations.

Chelation therapy is considered a mainstay in the medical management of children with BLLs > 45 µg/dL, but should be used with caution. Consultation with a physician with expertise and experience in treating children with lead toxicity is recommended.

Therefore, prior to suggesting or prescribing chelation agents, it would be prudent to consult with a

- Local or state lead poisoning prevention program, a
- Local poison control center, and/or a
- Regional Pediatric Environmental Health Specialty Unit (PEHSU).

Evaluation and Intervention Strategies for Children with BLLs at or Above the Reference Value

When the neurological exam, milestones, or behavior suggest it, further neurobehavioral testing or evaluation for Attention Deficit Hyperactivity Disorder (ADHD) may be indicated.

Table 8 shows ACCLPP Recommended Actions Based on BLLs. It is important to mention the increased urgency of these interventions as BLLs increase to reduce the damage to the persons exposed, especially children.

A BLL of ≥45 µg/dL is not a threshold for chelation, but a guideline. Professional judgment should guide the decision to chelate a child or adult, based on their individual clinical considerations. In some instances, a patient may need to be chelated at somewhat lower BLLs.

Table 8: ACCLPP Recommended Actions Based on BLL [ACCLPP 2012]

<Reference Value	**≥Reference Value of 5-≤45 µg/dL**	**≥45 - ≤69 µg/dL**
Lead education -Dietary -Environmental Environmental assessment* for pre-1978 housing	Lead education -Dietary -Environmental Follow-up blood lead monitoring Complete history and physical exam Lab work: - Iron status Consider Hemoglobin or hematocrit	Lead education -Dietary -Environmental Follow-up blood lead monitoring Complete history and physical exam Lab work: - Iron status - Free erythrocyte protoporphyrin Environmental investigation

	Environmental investigation Lead hazard reduction Neurodevelopmen-tal monitoring - Abdominal X-ray (if particulate lead ingestion is suspected) with bowel decontamination if indicated	Lead hazard reduction Neurodevelopment al monitoring Abdominal X-ray with bowel decontamination if indicated Oral chelation therapy Consider hospitalization if lead-safe environment cannot be assured	actions fo µg/dL

*The scope of an "environmental assessment" will vary based on local resources and site conditions. However, at a minimum this would include a visual assessment of paint and housing conditions, but may also include testing of paint, soil, dust, and water and other lead sources [Levin et al. 2008]. This may also include looking for exposure from imported cosmetics, folk remedies, pottery, food, toys, etc. which may be more important in low-level lead exposure [ACCLPP 2012].

Coordination of care with local authorities and organizations, including local Childhood Lead Poisoning Prevention programs, is essential to

- Initiate prompt investigation for the source of lead exposure, and
- Plan a response strategy.

Although these services are typically outside of the clinician’s role, medical and environmental interventions

should be implemented simultaneously to best protect the child.

In addition, families with children whose BLLs are above the reference value should be given access to services that provide education about:

- Existing codes or ordinances,
- Lead-safe housing rules,
- Disclosure requirements,
- Landlord responsibilities,
- Risk factors for lead exposure in the home and at work, and
- Steps for maintaining a lead safe home (lead hazard identification and repair, lead dust testing, EPA and state Renovation, Repair and Painting (RRP) requirements, and do-it-yourself precautions).

Home visits by CLPPP staff, community health workers, Maternal and Child Health home visiting programs, and other systems to assess the home should:

- Advise occupants of lead hazards,
- Make referrals in response to identified lead hazards, and
- Report observations and lead test results.

Assistance and guidance is available regarding:

- Housing codes, including legal services for egregious situations like evictions and serial offender property owners and referrals to code enforcement,
- Landlord violations of RRP, and
- Other lead rules.

"Low health literacy is a threat to the health and wellbeing of Americans. And low health literacy crosses all sectors of our society. All ages, races, incomes, and education levels are challenged by low health literacy."

Rear Admiral Kenneth P. Moritsugu, MD, MPH
Acting United States Surgeon General, December 2006

Health Literacy is the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.

Approximately one-half of the adult population may lack the needed health literacy skills to best utilize the U.S. healthcare system. Low health literacy has been linked to poor health outcomes such as higher rates of hospitalization and less frequent use of preventive services [CDC 2013f].

CDC Healthy Homes and Lead Poisoning Prevention Program addresses health literacy. It created several resources to help communicate about childhood lead poisoning.
https://www.cdc.gov/nceh/lead/tools/LeadLiteracy.htm

Recommendations on Medical Management of Childhood Lead Exposure and Poisoning

No level of lead in the blood is safe. In 2012, the CDC established a new "reference range upper value" for BLLs (5 µg/dL), thereby lowering the level at which evaluation and intervention are recommended.

Effective screening policies and practices should ensure that the children of high-risk families (e.g., families on Medicaid) are screened, and that lead-exposed children or children with elevated BLLs receive key environmental interventions and case management services [ACCLPP 2012].

Table 9. Clinical Recommendations Based on Blood Lead Levels (BLLs) [PEHSU 2013]

Blood Lead Level	Recommendation
<5 µg/dL	1. Review lab results with family. For reference, the geometric mean BLL for children 1-5 years old is less than 2 µg/dL.

		2. Repeat the BLL test in 6-12 months if the child is at high risk or risk changes during the timeframe. Ensure levels are done at 1 and 2 years of age. 3. For children screened at age <12 months, consider retesting in 3-6 months, as lead exposure may increase as mobility increases. 4. Perform routine health maintenance, including assessment of nutrition, physical and mental development, and iron deficiency risk factors. 5. Provide anticipatory guidance on common sources of environmental lead exposure: paint in homes built prior to 1978, soil near roadways or other sources of lead, take-home exposures related to adult occupations, imported products such as spices, cosmetics, home remedies, and cookware.
	5-14 µg/dL	1. Perform steps as described above for levels <5 µg/dL. 2. Re-test venous BLL within 1 month to ensure the lead level is not rising. If it is stable or decreasing, retest the BLL in 3 months. Refer patient to local health authorities if such resources are available. Most states require elevated BLLs be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or the National Lead Information Center at 800-424-LEAD (800-424-5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing/eliminating exposures. Take care to consider other children who may be exposed.

		4. Provide nutritional counseling related to calcium and iron. In addition, recommend the child eat a fruit or vegetable high in vitamin C (e.g., citrus fruits and leafy greens) at every meal, as iron absorption quadruples when taken with vitamin C-containing foods. Encourage the consumption of iron-enriched foods (e.g., cereals, meats). Some children may be eligible for Special Supplemental Nutrition Program for Women, Infants and Child (WIC) or other nutritional counseling. 5. Ensure iron sufficiency with adequate laboratory testing (CBC, Ferritin, CRP) and treatment per AAP guidelines. Consider starting a multivitamin with iron. 6. Perform structured developmental screening evaluations at child health maintenance visits, as the effect of lead on development may manifest over years.
	15-44 µg/dL	1. Perform steps as described above for levels 5-14 µg/dL. 2. Confirm the BLL with repeat venous sample within 1 to 4 weeks. 3. Additional, specific evaluations of the child, such as an abdominal x-ray should be considered based on the environmental investigation and history (e.g., pica for paint chips, mouthing behaviors). Gut decontamination may be considered if leaded foreign bodies are visualized on x-ray. Any treatment for BLLs in this range should be done in consultation with an expert. Contact local PEHSU or PCC for guidance; see “Sources of Additional Information” section for contact information.

	>44 µg/dL	1. Follow guidance for BLL 15-44 µg/dL as listed above. 2. Confirm the BLL with repeat venous sample within 48 hours. 3. Consider hospitalization and/or chelation therapy (managed with the assistance of an experienced provider). Safety of the home with respect to lead hazards, isolation of the lead source, family social situation, and chronicity of the exposure are factors that may influence management. Contact your regional PEHSU or PCC for assistance.

Given the challenges involved in measuring BLLs as low as 5 µg/dL, quality assurance practices will need to be updated with the goal of improving accuracy and repeatability of BLL testing results.

Management of Children with BLLs Above 45 µg/dL

Chelation therapy is considered a mainstay in the medical management of children with BLLs > 45 µg/dL. However, this level is a guideline, not a threshold for hospitalization and/or chelation, and should be used with caution. Professional judgment should drive determinations of when to chelate. In some instances, a patient may need to be chelated at somewhat lower BLLs. Therefore, prior to suggesting or prescribing chelation agents, primary care providers should consult with their local or state lead poisoning prevention program, local poison control center, or regional Pediatric Environmental Health Specialty Unit (PEHSU) for the names of accessible physicians that have both expertise and experience with chelation for lead toxicity.

A child with an elevated BLL and signs or symptoms consistent with encephalopathy should be chelated in a center capable of providing appropriate intensive care services [ACCLPP 2012].

Physicians who suspect an unusual environmental cause for an illness will often find it useful to contact an expert in pediatric environmental medicine.

- The Pediatric Environmental Health Specialty Units (PEHSU), located in the ten Federal Regions of the United States and in Canada, can provide information, assistance, and referral for clinical evaluation and treatment if environmental exposures are verified (for additional information regarding the PEHSU, visit: http://www.pehsu.net/
- Regional poison control contact information is available at: http://npic.orst.edu/health/poison.htm.
- CDC's Lead Poisoning Branch is an information resource available to clinicians at: https://www.cdc.gov/nceh/lead/about/program.htm

Because there are potential side effects associated with each chelating drug, and because treatment protocols differ for each, it is vital that physicians with experience in chelation therapy be consulted before any chelation therapy is begun [AAP 1995].

An accredited regional poison control center, a university medical center, or a state or local health department can help identify an experienced physician.

Note also that the $CaNa_2EDTA$ (i.e., edetate calcium disodium, Calcium EDTA) mobilization (challenge) test is no longer recommended because of its difficulty, expense, and potential for increasing lead toxicity [ACMT 2013; AAP 1995].

The utility of provoked urine tests for the diagnosis of metal poisoning has been addressed previously by the American College of Medical Toxicology [ACMT 2010]. It published a position statement recommending against the use of this test. Similarly, authors from the ATSDR and CDC have detailed the problems with provoked urine tests and have concluded that they should not be used as diagnostic tools [Risher and Amler 2005]. Yet despite these recommendations against the use of provoked

	urine testing by respected organizations, the test is still commonly used and recommended by some practitioners [Ruha 2014]. **Potential Medical Error** There are several commercial drugs with the active ingredient EDTA. Only $CaNa_2EDTA$ (also known as calcium disodium versenate or edetate calcium disodium) is appropriate for chelation. **Na_2EDTA** (disodium ethylenediaminetetraacetic acid) **is not appropriate for chelation.** Please write your script carefully and legibly to avoid mistakes with chelating agents.
Ongoing Monitoring For Lead-Exposed Children	For the child identified with BLL results greater than or equal to the reference value, ongoing monitoring of BLL is indicated during and after appropriate medical, educational, and environmental interventions (See Table 9). BLLs that increase may be indicative of • An unrecognized source of exposure, • Inappropriate abatement activities, • Failure to mitigate the identified hazard, or • The redistribution of lead stores within the child's body. For the child with an increasing BLL, additional medical and environmental evaluation and interventions may be necessary, along with ongoing coordination of care with the local Childhood Lead Poisoning Prevention Program (CLPPP). This monitoring is essential to identify a given source of lead, help determine if there is any ongoing exposure, and to verify the decline in BLL after lead sources have been reduced or eliminated. Ongoing monitoring is also essential for children undergoing chelation [AAP 1995, CDC 2002].

Table 10. Ongoing Monitoring for Lead-Exposed Children[a]

Venous BLL µg/dL	**Early Follow-up Testing** (2-4 Tests after Identification)	**Later Follow-up Testing After BLL Decline** (5 µg/dL)
≥Reference value 5-9	3 months*	6-9 months
10-19	1-3 months*	3-6 months
20-24	1-3 months*	1-3 months
25-44	2 weeks-1 month	1 month
≥45	As soon as possible	As soon as possible

[a]Seasonal variation of BLLs exist and may be more apparent in colder climate areas. Greater exposure in the summer months may necessitate more frequent follow-up.

*Some case managers or PCPs may choose to repeat blood lead tests on all new patients within one month to ensure that their BLL is not increasing more quickly than anticipated [ACCLPP 2012].

Key Points

- Management strategies for children whose BLLs are equal to or greater than the reference value include ongoing monitoring during and after appropriate medical, nutritional, educational, and environmental interventions, and coordination with other organizations.
- BLLs that increase may indicate an unrecognized source of exposure, inappropriate abatement activities, failure to mitigate the identified hazard, or the redistribution of lead stores within the child's body.
- Consultation and/or referral to a health care provider with expertise and experience in treating and managing patients with lead toxicity is highly recommended, especially for children with BLLs ≥

	45 µg/dL or other appropriate individual children at somewhat lower BLLs. • Chelation challenge to detect or monitor for lead toxicity is not recommended and may be harmful to the patient. • Chelation is not risk free. The possible complications need to be considered and weighed against with the possible benefits.
Progress Check	25. Treatment and management strategies for children whose BLLs are equal to or greater than the CDC reference value include which of the following? A. Nutritional education and intervention. B. Educational intervention and ongoing monitoring. C. Coordination with other organizations. D. Chelation. E. All of the above. *To review relevant content, see "Evaluation and Intervention Strategies for Children with BLLs Above the Reference Value" in this section.* 26. When is ongoing monitoring of BLLs indicated? A. When a child is identified with BLL results greater than or equal to the CDC reference value (≥5 µg/dl). B. When a child has a venous BLL <5 µg/dl. C. When any child presents with hypertension and neurological symptoms. D. When there is more than one child living in a pre-1978 home. *To review relevant content, see "Ongoing Monitoring For Lead-Exposed Children" in this section.* 27. BLLs that increase may indicate which of the following? A. An unrecognized source of exposure.

B. Inappropriate abatement activities and failure to mitigate the identified hazard.
C. The redistribution of lead stores within the child's body post-chelation.
D. All of the above.

To review relevant content, see "Ongoing Monitoring For Lead-Exposed Children" in this section.

What Instructions Should Be Given to Patients?

Learning Objectives

Upon completion of this section, you will be able to

- Describe instructions to parents and patients to prevent or reduce lead exposure,
- Describe instructions for patients exposed to lead, and
- Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

Introduction

"Clinicians should be a consistent and reliable source of information, and take a primary role in educating families about the risks of lead-exposure. If appropriately educated, all families will be better equipped to make sound housing decisions based on an understanding of the risks associated with lead hazards" [ACCLPP 2012].

The primary instruction to patients and parents of children exposed to lead should be to eliminate or control sources of all lead exposure. These recommendations will depend on lead exposure source type and setting (e.g., home or workplace).

Guidance for parents should cover a number of lead risk topics, including

- In-home exposures,
- Potential lead-exposures associated with parental occupations and hobbies, and

- Unsafe renovation practices.

This section focuses on instructions the health care provider can give to parents and patients regarding steps they can take to prevent, reduce, or mitigate lead exposure from the home, workplace, and environment.

Also discussed are risk communication and education strategies that health care providers can use to best explain lab results, deliver instructions on clinical follow-up, and impart preventive messages to their lead exposed or potentially exposed patients.

Communication with Parents and At Risk Populations	Parents should be provided with information on identifying lead hazards and safe/reliable methods to minimize exposures, as well as contact information for additional local lead-related resources. This information should be provided in appropriate cultural formats and reading level for the target audience. In addition, the clinician has a role in recognizing risks for potential lead exposures specific to • Immigrant communities, • Refugees, and • Children adopted from foreign countries, whose previous and/or ongoing lead exposure may include • Ceramic ware, • Cosmetics, • Folk /home remedies, • Food, • Medications, • Toys, and • Other less common items (like automobile batteries). The health care provider should ensure there is time available to carefully listen to expressed concerns and questions and provide empathetic responses with voiced understanding by the parent or patient. Information may need to be repeated. This is especially important during high risk/emotionally charged situations when the ability to receive and process information may be decreased.
Blood Lead Level Risk Communication and Education Strategies	Effective screening policies and practices should ensure that the children of high-risk families (e.g., families on Medicaid) are screened, and that lead-exposed children or children with elevated BLLs receive key environmental interventions and case management services [ACCLPP 2012]. • Interactions with affected families must be performed in a culturally-sensitive, same-language,

	and streamlined manner (see Lead Health Literacy Initiative at: https://www.cdc.gov/nceh/lead/tools/LeadLiteracy.html. • The medical home, laboratory, and other providers should offer simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact should be conveyed. • Specialized terms such as “detectable level” or “elevated BLL” should be defined. • Pediatricians and other providers shall integrate BLL test results into the “basic” report of indicators like weight, height, and developmental percentiles. • Pediatricians commonly present data in the form of percentiles, and a similar convention could help physicians explain elevated BLLs to parents (see [CDC 2011b] for patient handouts). • Test results should not be difficult to obtain; parents should have continuous access to BLL test results via internet and telephone retrieval systems until the child reaches the age of twelve. • Physicians should explain the uncertainty of all quantitative medical tests and BLL testing.
Communicating Instructions to Prevent, Lower, or Mitigate Domestic Lead Exposure	For children (and adults) with domestic exposures, there may be multiple sources. Therefore, it is important to identify and encourage patients and parents to address all potential sources of lead and to continue blood lead monitoring to help confirm that the source(s) has(have) been effectively eliminated. It would be important to explain to parents and patients that domestic exposure to lead can come from a variety of sources, including • Deteriorated paint, • Contaminated soil, • Water (i.e., lead solder in pipes), or • Other products. Patients or parents should be advised to • Eliminate source(s) of lead exposure,

- Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines),
- Maintain a low-fat diet high in calcium, zinc, vitamin C and iron, and
- Continue to monitor BLLs (if applicable).

It may be difficult for low-income patients and their families to permanently address all lead hazards in their homes, due in part to costs and/or landlord accountability (if they rent).

Patients or parents should be informed of the following:

- There are federal disclosure laws for potential renters/buyers that require landlords and sellers to disclose any known lead hazard.
- State and/or local ordinances require property owners to address higher lead content paint hazards, and in many communities, grants are available to help with lead hazard control.
- Additionally, there are many low-cost ways to temporarily reduce lead hazards in homes. The *"Sources of Additional Information"* section provides several helpful resources.

Since lead poisoning from old or peeling paint continues to be a serious health risk to American children, the U.S. Environmental Protection Agency (EPA) wants to remind parents and contractors and increase the awareness of health care workers of the importance of lead-safe practices during renovation of homes built before 1978. See: https://www3.epa.gov/region9/lead/index.html

Covering bare soil contaminated with lead in the yard with grass or other type of covering may reduce exposures. Guidelines are available from governmental and nongovernmental organizations to help health care providers instruct their patients in reducing home lead hazards [ACCLPP 2012]. It is also important that residents mop the floors and use a wet rag for cleaning the window sills regularly, as children's BLLs have been

	found to be directly correlated with levels of lead in dust in their homes [Lanphear et al. 1998].
OSHA's Lead and Hazard Communication Standards	Health care providers need to be aware of OSHA regulations for workplace lead exposure prevention and surveillance. They should also be aware of the OSHA Hazardous Communication standard. Inform workers that they have a right to a safe workplace. The Occupational Safety and Health Act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards. The law requires employers to provide their employees with working conditions that are free of known dangers [OSHA 2014]. It is important that workers understand what these regulations and controls mean and the proper use of personal protective equipment to avoid exposures. OSHA requires employers to establish hazard communication programs to transmit information on the hazards of chemicals to their employees by means of labels on containers, material safety data sheets, and training programs. Implementation of these hazard communication programs will ensure all employees have the "right-to-know" about the hazards and identities of the chemicals they work with, and will reduce the incidence of chemically - related occupational illnesses and injuries [OSHA 2014b]. Communicate with workers that as part of OSHA's lead standard, BLLs are monitored. If workers have elevated BLLs, they need to understand and comply with work site controls to lower these levels and their responsibilities to prevent future exposures. Inform workers in environments with lead that they can take lead home on their skin, hair, shoes, tools, and clothing. That is why it is important to change clothing and shower after work before going home to avoid taking lead home. Clothing contaminated with lead can

	be placed in a plastic bag and washed separately from other clothing to avoid contamination. Some workplaces provide work clothing and/or laundering service for their employees. Advise workers that it is a violation of the Act for an employer to fire, demote, transfer or discriminate in any way against a worker for filing a complaint or using other OSHA rights. OSHA can help answer questions or concerns from employers and workers. To reach a regional or area OSHA office, go to OSHA's Regional & Area Offices webpage or call 1-800-321-OSHA (6742). Employee rights under OSHA [OSHA 2014b]: https://www.osha.gov/Publications/osha3021.pdf.
Clinical Follow Up Instructions to Patients	Patients need to understand when and why they should call their physician for further medical attention. This will depend on several factors including their blood lead level results, signs and symptoms, exposure risk and exposure status, comorbid health conditions, and past and current health status. In particular, they should know that they may need their blood lead monitored on an ongoing basis to confirm removal from the source of exposure and/or response to clinical modalities including chelation therapy. ATSDR's Lead Toxicity Patient Education Sheet https://www.atsdr.cdc.gov/csem/csem.asp?csem=7&po=19 provides a job aid to facilitate patient education and clinical care follow-up instructions.
Key Points	• Health care providers should communicate and share accurate, up to date, relevant information and resources with parents and patients exposed or potentially exposed to lead from the workplace, home, and the environment. • The primary instruction to patients and parents of children exposed to lead should be to eliminate or control sources of all lead exposure. • Health care providers should be aware of relevant OSHA and CDC guidelines that govern screening

	and clinical management of lead exposed or potentially exposed patients. • Health care providers should use effective communication strategies when explaining how their patients can take steps to reduce exposure to lead in the workplace, home, and environment.
Progress Check	28. Examples of instructions that health care providers can communicate to patients who have been exposed to lead in their pre-1978 home include which of the following? A. Make sure all paint is in good condition. B. Mop and dust regularly. C. Follow lead safe work practices for remodeling. D. Cover bare soil in the yard. E. All of the above. *To review relevant content, see "Identifying Domestic Exposures to Lead" in this section.* 29. Communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients include all of the following, **EXCEPT**: A. Interactions with affected families performed in a culturally-sensitive, same-language, and streamlined manner. B. Providing simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact. C. Physicians explain the uncertainty of all quantitative medical tests and BLL testing. D. Speak using scientific language and statistics to increase the credibility of information to the patient. *To review relevant content, see "Blood lead level risk communication and education strategies" in this section.*

30. When explaining patients or parents that domestic exposure to lead can come from a variety of sources, it is important to advise to:

A. Eliminate source(s) of lead exposure.
B. Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines).
C. Maintain a low-fat diet high in calcium, zinc, vitamin C and iron.
D. Continue to monitor BLLs (if applicable).
E. All of the above.

To review relevant content, see "Communicating Instructions to Prevent, Lower, or Mitigate Domestic Lead Exposure" in this section.

Sources of Additional Information

Lead-Specific Information

Please refer to the following online resources for more information on the adverse effects of lead, the treatment of lead-associated diseases, and management of persons exposed to lead.

- Agency for Toxic Substances and Disease Registry (ATSDR): https://www.atsdr.cdc.gov
  - For chemical, emergency situations:
    - CDC Emergency Response: 770-488-7100 and request the ATSDR Duty Officer.
  - For chemical, non-emergency situations:
    - CDC-INFO https://www.cdc.gov/cdc-info/
    - 800-CDC-INFO (800-232-4636) TTY 888-232-6348 – 24 Hours/Day
    - E-mail: cdcinfo@cdc.gov

PLEASE NOTE: ATSDR cannot respond to questions about individual medical cases, provide second opinions or make specific recommendations regarding therapy.

- Toxicological Profile for Lead: https://www.atsdr.cdc.gov/toxprofiles/TP.asp?id=96&tid=22
- ATSDR's ToxFAQs and ToxFAQs-Chemical Agent Briefing Sheet (ToxFAQs-CABS) answer the most frequently asked health questions about lead: https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=93&tid=22
- TOXFAQs – Plomo (Lead in Spanish): https://www.atsdr.cdc.gov/es/toxfaqs/es_tfacts13.html

- Centers for Disease Control and Prevention (CDC)

  - CDC Lead portal: https://www.cdc.gov/nceh/lead/
  - CDC Childhood Lead Poisoning Prevention Program https://www.cdc.gov/nceh/lead/about/program.htm?
  - National Institute of Safety and Health (NIOSH) Workplace Safety and Health Topics – Lead: https://www.cdc.gov/niosh/topics/lead/

- U.S. Environmental Protection Agency

  - EPA Lead Home at: https://www2.epa.gov/lead
  - Lead Awareness Program provides information about lead in paint, dust, and soil and how to protect children from lead poisoning at: https://www.epa.gov/lead/
  - EPA's Water on Tap, what you need to know. https://water.epa.gov/drink/guide/upload/book_waterontap_full.pdf
  - Learn About Lead, Protect Your Family, and Renovate Right https://www.epa.gov/lead/pubs/renovation.htm

	o Protect Your Family From Lead In Your Home https://www2.epa.gov/lead/protect-your-family-lead-your-home o Let's Wipe Out Lead Poisoning: Renovate Right https://www2.epa.gov/lead/lead-safe-certified-guide-renovate-right o Safe Water Drinking Act. https://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm o Safe Drinking Water Hotline 1-800-426-4791. • The National Lead Information Center (NLIC), funded by EPA, the CDC and the Department of Housing and Urban Development (HUD), provides the general public and professionals with information about lead hazards and their prevention: http://www2.epa.gov/lead/forms/lead-hotline-national-lead-information-center, or call 800-424-LEAD (800-424-5323) Information is available in Spanish with the use of a translator. • Occupational Safety and Health Administration (OSHA) Safety and Health Topics – Lead: https://www.osha.gov/SLTC/lead/ • U.S. Department of Housing and Urban Development. The Renovation, Repair and Painting Rule. Renovation Training and resources https://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/training/rrp/rrp • National Poison Control Center 1-800-222-1222 • Health departments and other agencies may have additional materials that may be useful to patients with environmental lead exposures.
General Environmental Health Information	Please refer to the following online resources for general information on environmental health. • Agency for Toxic Substances and Disease Registry: https://www.atsdr.cdc.gov

- Case Studies in Environmental Medicine (CSEM) – Taking a Pediatric Exposure History: https://www.atsdr.cdc.gov/csem/csem.asp?csem=26&po=0
- Case Studies in Environmental Medicine (CSEM) – Taking an Exposure History: https://www.atsdr.cdc.gov/csem/csem.asp?csem=33&po=0
- Complete library of CSEMs: https://www.atsdr.cdc.gov/csem/csem.html
- Exposure History Worksheet [Adult] (pdf): https://www.atsdr.cdc.gov/csem/exphistory/docs/CSEMExposHist-26-29.pdf
- ATSDR Division of Regional Operations:
  - Through the working relationships they have established with EPA, other federal and state agencies, individual citizens, and community groups, regional representatives are able to maintain current and historic knowledge of the sites and issues in their regions.
    - ATSDR's Regional Offices, the states and territories they cover, and corresponding contact information can be found at: https://www.atsdr.cdc.gov/dro/index.html
- ATSDR State Cooperative Agreement Program: https://www.atsdr.cdc.gov/states/index.html
  - The Cooperative Agreement Program provides essential support in communities nationwide to fulfill the mission of ATSDR.
  - The program funds 30 states and one tribal government to develop and strengthen their abilities to evaluate and respond to environmental public health issues.

- Centers for Disease Control and Prevention (CDC): https://www.cdc.gov/
  - The CDC works to protect public health and safety by providing information to enhance health decisions, and promotes health through

partnerships with state health departments and other organizations.
    - The CDC focuses national attention on developing and applying disease prevention and control (especially infectious diseases), environmental health, occupational safety and health, health promotion, prevention, and education activities designed to improve the health of the people of the United States.

- National Center for Environmental Health (NCEH): https://www.cdc.gov/nceh/

    - NCEH works to prevent illness, disability, and death from interactions between people and the environment. It is especially committed to safeguarding the health of populations that are particularly vulnerable to certain environmental hazards — children, the elderly, and people with disabilities.
    - NCEH seeks to achieve its mission through science, service, and leadership.

- Environmental Protection Agency (EPA): https://www.epa.gov/

    - EPA is a government agency concerned with the American environment and its impact on human health.

- National Institutes of Health (NIH): https://www.nih.gov/

    - Part of the U.S. Department of Health and Human Services (HHS), NIH is the primary federal agency that conducts and supports medical research.

- National Institute of Occupational Safety and Health (NIOSH): https://www.cdc.gov/niosh/

    - Part of HHS, NIOSH helps to assure safe and healthy working conditions for working men and women by providing research, information,

education, and training in occupational safety and health.

- Children's Environmental Health Network. Training Manual on Pediatric Environmental Health: Putting it into Practice (CEHN) http://www.nchh.org/Portals/0/Contents/Training_manual_lead.pdf

- The U.S. National Library of Medicine's Toxicology and Environmental Health Information Program (TEHIP): https://sis.nlm.nih.gov/enviro.html

  - TEHIP maintains a comprehensive toxicology and environmental health web site that includes access to resources produced by TEHIP and by other government agencies and organizations.
  - This web site includes links to databases, bibliographies, tutorials, and other scientific and consumer-oriented resources.
  - TEHIP also is responsible for the Toxicology Data Network (TOXNET®), an integrated system of free toxicology and environmental health available at: https://toxnet.nlm.nih.gov/

Clinical Resources (Publically Available)

Please refer to the following online resources for more information on the clinical treatment of lead-associated diseases, and management of persons exposed to lead.

- American Association of Poison Control Centers (AAPCC): http://www.aapcc.org or 800-222-1222

  - The AAPCC can be contacted for questions about poisons and poisonings. The web site provides information about poison centers and poison prevention.
  - The AAPCC does not provide information about treatment or diagnosis of poisoning or research information for student papers.

- American College of Medical Toxicologists (ACMT): http://www.acmt.net

- ACMT is a professional, nonprofit association of physicians with recognized expertise in medical toxicology.
- ACMT is dedicated to advancing the science and practice of medical toxicology through a variety of activities.

- American College of Occupational and Environmental Medicine (ACOEM) http://www.acoem.org/

  - ACOEM is the nation's largest medical society dedicated to promoting the health of workers through preventive medicine, clinical care, research, and education.
  - Its members are a dynamic group of physicians encompassing specialists in a variety of medical practices who develop positions and policies on vital issues relevant to the practice of preventive medicine, both within and outside of the workplace.

- American College of Preventive Medicine (ACPM) http://www.acpm.org

  - ACPM is the national professional society for physicians committed to disease prevention and health promotion.
  - ACPM's 2,000 members are engaged in preventive medicine practice, teaching, and research.

- Association of Occupational and Environmental Clinics (AOEC): http://aoec.org

  - AOEC is a network of more than 60 clinics and more than 250 individuals committed to improving the practice of occupational and environmental medicine through information sharing and collaborative research.
  - Medical Management Guidelines for Lead-Exposed Adults. Revised 04/24/2007. CSTE Medical Management Guidelines Added October 2013 See Pages 16-17.

http://www.aoec.org/documents/positions/mmg_revision_with_cste_2013.pdf

- Pediatric Environmental Health Specialty Units (PEHSUs): http://www.PEHSU.net
  - Based at an academic center, each PEHSU is a collaboration between the pediatric clinic and the occupational and environmental clinic at each site.
  - The PEHSUs were developed to provide education and consultation for health care providers, public health professionals, and others about the topic of children's environmental health.
  - The PEHSU staff is available for consultation about potential pediatric environmental health concerns affecting both the child and the family. Health care professionals may contact their regional PEHSU site for clinical advice

Posttest

Posttest

Please select the one best answer choice.

1. Lead is a

   A. Soft, heavy, blue-gray metal
   B. Naturally occurring substance
   C. Commercially used substance
   D. All of the above.

2. Which of the following is true about organic lead in the United States?

   A. It is more commonly found in home environments today than is inorganic lead.
   B. It is the most available source of exposure through natural processes.
   C. It was a common source of lead exposure in the United States when leaded gasoline was used in “on road” vehicles.

D. Cannot enter the body through dermal exposure.

3. In the U.S., the majority of children exposed to lead are exposed from

   A. Contaminated drinking water.
   B. Lead-contaminated dust, soil, and deteriorated lead-based paint.
   C. Imported food, home remedies, and cosmetics.
   D. Commercial products containing lead.

4. Which of the following is **NOT** considered a potential source of lead exposure?

   A. Jewelry.
   B. Unfinished treated lumber.
   C. Imported cosmetics and home remedies.
   D. Glazed ceramics.

5. Which of the following statements about sources of lead in the environment is true?

   A. Lead dust exposure can raise children's BLLs above the reference value.
   B. Lead is heavy, so it does not travel far in the air from smelters or industries.
   C. Lead is only a problem in urban areas with pre-1978 housing.
   D. Children who eat paint chips make up the majority of those with BLLs above 5 µg/dL.

6. The most common route of exposure to lead in U.S. children is?

   A. Ingestion.
   B. Inhalation.
   C. Dermal contact.
   D. All are equally common.

7. Which is the U.S. population most susceptible to adverse health effects from lead exposure? Of the following, the U.S. population most at risk for exposure to lead today is

A. People who work in lead mining and smelting.
B. Adult household contacts of workers engaged in the manufacture of lead-containing products who remove contaminated clothing and take showers before going home.
C. Children living in pre-1978 buildings with deteriorated paint.
D. Construction workers.

8. CDC's upper reference level value of 97.5% based on 2012-2015 population distributions of children's blood lead is which of the following?

A. 3 µg/dL.
B. 5 µg/dL.
C. 10 µg/dL.
D. 25 µg/dL.

9. What does the CDC's reference value for children's blood lead indicate?

A. The BLL below which no effects have been found.
B. The level OSHA uses as a level of concern in workers.
C. An advisory level for environmental and educational intervention.
D. A regulatory level at which children must be immediately removed from any pre-1978 residences.

10. What are the OSHA standards for Lead Levels?

A. Permissible exposure limit (PEL) of lead in the workplace.
B. The frequency and extent of medical monitoring triggered by the action level.
C. Other responsibilities of the employer.
D. All of the above.

11. What is the U.S. EPA drinking water action level for lead?

A. 15 ppb in more than 10% of customer taps sampled.
B. The frequency and extent of medical monitoring for a BLL of 10 µg/dL.
C. 5 ppm in tap water.
D. All of the above.

12. What is the CPSC regulatory limit value for lead in paint?

A. 5 ppb.
B. 5 µg/L.
C. 10 µg/L.
D. 15 µg/L.
E. 90 ppm (0.009%).

13. What is the percentage of ingested inorganic lead a child will absorb after a meal and on an empty stomach

A. 10 and 40%.
B. 25 and 60%.
C. 40 and 80%.
D. 50 and 100%.

14. Which of the following answer choices best describes where lead is distributed once it enters the body?

A. Blood, sweat and tears.
B. Stomach, liver and bones.
C. Blood, mineralizing tissues and soft tissue.
D. Blood, cerebrospinal fluid and brain.

15. What is the approximate half-life of lead in the blood of an adult?

A. Seven days.
B. Twenty-eight days.
C. Three to six months.
D. One year.

---

16. Why would a patient's BLL drop only gradually, even with complete removal from the source of exposure?

    A. Lead's half-life in the blood is almost one year.
    B. Everyone is exposed to high background levels of lead.
    C. Lead stored in the bones and soft tissues may be released over time.
    D. None of the above.

17. The most commonly reported adverse health effects in children at BLLs <5µg/dL include all of the following **EXCEPT**

    A. Endocrine effects.
    B. Attention-related behavioral problems.
    C. Decreased IQ and cognitive performance.
    D. Greater incidence of problem behaviors.

18. Some researchers have suggested that lead exposure in the U.S. continues to contribute significantly to

    A. Socio-behavioral problems such as juvenile delinquency and violent crime.
    B. Kidney disease.
    C. Decreased IQ and cognitive performance.
    D. All of the above.

19. What is the most sensitive organ system for lead exposure in children?

    A. Endocrine system.
    B. Nervous system.
    C. Immunologic system.
    D. Renal system.

20. What is the identified threshold or safe level of lead in blood for children?

    A. 5 µg/dL.
    B. 10 µg/dL
    C. 15 µg/dL.

D. There is no identified threshold or safe level of lead in blood.

21. Which of the following statement(s) about taking screening exposure histories for children is/are true?

A. It is necessary to ask all the screening questions at every visit.
B. The physician should perform age-appropriate risk-based screening for lead poisoning during an initial well-child visit.
C. There is no need to ask age-specific screening questions because all children are exposed equally.
D. All of the above.

22. As part of the exposure history, you should explore

A. Possible lead exposure at parent's work.
B. Household members' hobbies that might involve lead.
C. Household use of imported home remedies and cosmetics.
D. All of the above.

23. Which of the following statements regarding the clinical assessment of a lead exposed patient is/are true?

A. Carefully evaluate the nervous system for subtle changes, including behavioral changes.
B. Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
C. Hearing, speech, and other developmental milestones must be carefully evaluated and documented.
D. Assess the nutritional status, diet, and dietary behaviors of young children.

E. All of the above.

24. Which of the following statements is true regarding the signs and symptoms of lead toxicity?

A. Signs and symptoms will always be more noticeable with increasing BLLs.
B. All children with low dose level exposure, will be asymptomatic.
C. Symptoms of lead exposure and their onset may vary.
D. Categorizing the signs and symptoms by BLL from lowest to highest is very accurate.

25. What is the best screening and confirmatory diagnostic test for evaluating recent or ongoing lead exposure in a child?

A. EP/ZPP.
B. Capillary BLL (fingerstick).
C. Venous BLL.
D. Abdominal radiograph.

26. Blood lead level (BLL) testing is recommended for all of the following at risk groups **EXCEPT**

A. Neonates and infants of women with BLLs ≥5µg/dL.
B. Children ≤72 months that missed recommended screening at a younger age.
C. All immigrant, refugee, and internationally-adopted children when they arrive in the U.S.
D. All children when they start school.

27. What imaging and other clinical modalities may assist in the diagnosis of current or past lead exposed patients?

A. Abdominal radiographs.
B. Long bone radiographs.
C. Hair assay.
D. All of the above.
E. None of the above.

28. Management strategies for children whose blood levels are equal to or greater than the reference value include of the following:

    A. Nutritional education and intervention.
    B. Educational intervention and ongoing monitoring.
    C. Coordination with other organizations.
    D. All of the above.

29. When is ongoing monitoring of BLLs indicated?

    A. When a child is identified with BLL results greater than or equal to the CDC reference value (≥5 µg/dL).
    B. When a child has a venous BLL <5 µg/dL.
    C. When any child presents with hypertension and neurological symptoms.
    D. When there is more than one child living in a pre-1978 home.

30. BLLs that increase after interventions to mitigate lead exposure may indicate which of the following?

    A. An unrecognized source of exposure.
    B. Inappropriate abatement activities and failure to mitigate the identified hazard.
    C. The redistribution of lead stores within the child's body post-chelation.
    D. All of the above.

31. What should you tell patients who are concerned about lead in their drinking water, but there is no confirmation of lead contamination from the Department of Health?
    A. As long as they don't have well water, their water is safe.
    B. Until they can get their water tested, boil their drinking water.
    C. Drinking water is non-acidic and will not leach lead out of old pipes, fixtures, or solder.
    D. Until they can get their water tested, they can drink bottled water, or run cold water for 1 to 2 minutes before use. They can contact their

water provider for recent lead level test results (large water suppliers).

32. When explaining patients or parents that domestic exposure to lead can come from a variety of sources, it is important to advise to:

    A. Eliminate source(s) of lead exposure.
    B. Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines).
    C. Maintain a low-fat diet high in calcium, zinc, vitamin C and iron.
    D. Continue to monitor BLLs (if applicable).
    E. All of the above.

33. What effective doctor/patient communication strategies can you use?

    A. Offer simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact.
    B. Allow interactions with affected families performed in a culturally-sensitive, same-language, and streamlined manner.
    C. Define specialized terms such as “detectable level” or “elevated BLL”.
    D. All of the above.

Relevant Content

Question	Location of Relevant Content
1.	What Is Lead? • Explain what lead is.
2.	Where is Lead Found?

- Describe potential sources of lead exposure in the United States today.

3. Where Is Lead Found?

- Describe potential sources of lead exposure in the United States today.

5. Where Is Lead Found?

- Describe potential sources of lead exposure in the United States today.

6. Where Is Lead Found?

- Identify the most common routes of exposure to lead in the United States today.

7. Who Is At Risk of Lead Exposure?

- Identify the populations most heavily exposed to lead.

8. What Are U.S. Standards for Lead Levels?

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood.

9. What Are U.S. Standards for Lead Levels?

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood.

10. What Are the U.S. Standards for Lead Levels?

- Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air.

11. What Are U.S. Standards for Lead Levels?

- Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead.

12. What Are U.S. Standards for Lead Levels?

- Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.

13. What Is the Biological Fate of Lead in the Body?

- Describe how lead is absorbed.

14. What Is the Biological Fate of Lead in the Body?

- Describe how lead is distributed in the body.

15. What Is the Biological Fate of Lead in the Body?

- Identify the half-life of lead in the blood.

16. What Is the Biological Fate of Lead in the Body?

- Describe how lead is distributed in the body.

17. What are Possible Health Effects from Lead Exposure?

- Describe how lead affects adults and children.

18. What are Possible Health Effects from Lead Exposure?

- Describe how lead affects adults and children.

19. What Are Possible Health Effects from Lead Exposure?

- Describe what is the most sensitive organ system for lead exposure in children.

20. What Are Possible Health Effects from Lead Exposure?

- Specify that there is no identified threshold or safe level of lead in blood.

21. Clinical Assessment –Exposure History

- Describe how to take a screening exposure history for lead exposure.

22. Clinical Assessment –Exposure History

- Identify lead exposure-related questions to ask during a child visit.

23. Clinical Assessment – Signs and Symptoms

- Name typical signs and symptoms consistent with lead toxicity.

24. Clinical Assessment – Signs and Symptoms

- Describe key features of the physical examination for patients exposed to lead.

25. Clinical Assessment – Diagnostic Tests and Imaging

- Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure.

26. Clinical Assessment – Diagnostic Tests and Imaging

- Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure.

27. Clinical Assessment – Diagnostic Tests and Imaging

- Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.

28. How Should Patients Exposed to Lead be Treated and Managed?

- Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5 µg/dL.

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- Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5 µg/dL.

31. What Instructions Should be Given to Patients?

- Describe instructions to parents and patients to prevent or reduce lead exposure.

32. What Instructions Should be Given to Patients?

- Describe instructions for patients exposed to lead

33. What Instructions Should be Given to Patients?

- Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

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NIH Public Access
Author Manuscript
JAMA Pediatr. Author manuscript; available in PMC 2015 August 01.

Published in final edited form as:
JAMA Pediatr. 2014 August 1; 168(8): 737–745. doi:10.1001/jamapediatrics.2014.332.

Blood Lead Levels and children's Behavioral and Emotional Problems: A Cohort Study

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Abstract

Importance—The association between lead exposure and children's IQ has been well studied, but few studies have examined the effects of blood lead on children's behavior.

Objective—This study examined the association between blood lead concentrations and behavioral problems in a community sample of Chinese preschool children with a mean blood lead level <10 μg/dL.

Design—Prospective cohort study.

Setting—Four elementary schools in Jintan City, Jiangsu Province of China.

Participants—Participants were 1341 children at ages 3–5 years.

Main Outcome Measures—Blood lead concentration was measured at ages 3–5 years. Behavioral problems were assessed using Chinese versions of the Child Behavior Checklist and Teacher Report Form when children at age 6 years.

Results—Mean blood lead concentration was 6.4 μg/dL (SD=2.6), with 75th and 90th percentiles being 7.7 and 9.4 μg/dL respectively. General linear modeling showed significant associations between blood lead concentrations and increased scores for teacher reported behavioral problems. One μg/dL increase of blood lead concentration resulted in a 0.32, 0.25 and 0.30 increase of behavior scores on emotional reactivity, anxiety/depressed and pervasive developmental problems,

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All authors reported no financial interests or potential conflicts of interest.

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respectively (p <0.05), while adjusting for parental and child variables,. Spline modeling showed that teacher-reported behavior scores increased with blood lead concentration, particular for older girls.

Conclusions and Relevance—Blood lead concentrations, even at mean levels of 6.4 μg/dL, were associated with increased risk of behavioral problems in Chinese preschool children, including internalizing and pervasive developmental problems. This association showed different patterns depending on age and gender.

Keywords

behavior; blood lead concentration; CBCL; TRF; emotion; low lead exposure; pervasive developmental disorders

INTRODUCTION

Lead is now accepted to lower children's IQ at commonly encountered exposures, and no threshold has been determined for this effect. Accordingly, in May 2012 the US Centers for Disease Control and Prevention eliminated the terminology "level of concern," which was previously defined as a blood lead level concentration of 10 μg/dL.[1] Rather, children with elevated blood lead concentrations will be identified using a reference value based on the 97.5th percentile of the NHANES-generated blood lead concentration distribution in children aged 1–5 years old; currently, this value is 5 μg/dL.[1]

Blood lead concentrations >10 μg/dL are also linked to behavior problems in children,[2–6] delinquency in adolescents,[7–9] and criminal behaviors in adults.[10–11] Nevertheless, lead's effect on children's behavior is less understood compared to its impact on IQ. Few studies have been done at levels of exposure <10 μg/dL,[12–14] and almost all have focused on attention-related problems. Lead exposure is particularly concerning in developing countries where children have higher blood lead concentrations than in the US or Europe.[15–17] The present study examined the association between blood lead concentration (mean = 6.4 μg/dL) and behavioral problems using data from a community sample of Chinese preschool children.

METHODS

Subjects

Data comes from an ongoing longitudinal project, the China Jintan Child Cohort Study, which includes 1656 3–5-year-old children in Jintan city, Jiangsu province, China. Participants were drawn from four preschools chosen to represent the entire city's geographical, social, and economic profiles between from Fall 2004 to Spring 2005. Detailed information on the Jintan cohort is reported elsewhere.[18–19] The current study used a sample of 1341 children (603 girls, 738 boys) with blood lead data (81% of our original cohort). There were no significant differences in family residence, parental education or occupation, or marital status of parents between children with and without blood lead data.[18–19] Institutional Review Board approval was obtained from the University of

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Pennsylvania and the ethical committee for research at Jintan Hospital in China. Written informed consent was obtained from parents.

Measures

Blood lead concentrations—Blood lead concentration was tested once for each child, at age 3, 4, or 5 years, between November 2004 and March 2005. Collection was done by nurses using a standard protocol to avoid lead contamination. Each specimen was analyzed twice for blood lead using a graphite furnace atomic absorption spectrophotometer,[20–21] and Kaulson Laboratories in New Jersey provided blood lead reference materials for quality control. Limit of detection (LOD) was 1.8 μg/dL; half of LOD was imputed for 3 (0.2%) samples under the LOD. More details for this process are provided in Liu et al.[22]

Behavioral Problems—Children's behavioral problems were assessed in their last month of preschool, at age 6 years. Parents and teachers assessed the children with Chinese versions of the Child Behavior Checklist (CBCL/1.5–5) and Caregiver-Teacher Report Form (C-TRF/1.5–5) separately. The CBCL and C-TRF are widely used for assessing behavioral and emotional problems in children[23–25]; each consists of 99 items dealing with a child's behavior within the past twelve months. Items are rated on a 3-point scale (0-Not True, 1-Sometimes True, or 2-Often True).[26]

The CBCL/C-TRF scores are summarized in 3 ways: Two broadband problems (internalizing and externalizing) and Total *Problems*; seven *Syndromes* (anxiety/depression, emotional reaction, withdrawn, somatic complaints, sleep problems, attention problems, and aggression); and Five Diagnostic and Statistical Manual (DSM)-oriented *Scales* (affective, anxiety, attention deficit/hyperactivity, oppositional defiant, and pervasive developmental).[27] The problem structure (internalizing and externalizing) is still valid when used in Chinese children. Detailed descriptions of the setting and procedures of CBCL/C-TRF assessment and factor structures are provided in Liu et al.[28] We calculated normalized T scores (the ratio of behavior score's deviation from the population mean to its standard deviation) from raw scores relative to the scores of a Chinese normative sample of peers.[26,28] Children with a T score ≥60 (83rd percentile of Chinese norm group) are more likely to present behavior problems in the borderline/clinical range.[26]

Cognitive performance—Children's cognitive performance was assessed during their last year of preschool, at ages 5–6 years, using the Chinese version of the Wechsler Preschool and Primary Scale of Intelligence – Revised (WPPSI–R).Constructed by Wechsler[29] to assess the intelligence of children aged 3–7 years, the WPPSI-R was standardized in China in 1988 and is reliable in Chinese children.[30–31] Details are provided in Liu & Lynn[32] and Liu et al.[33]

Sociodemographic variables—Parents completed a questionnaire on the child's sex, age at blood lead test, siblings (yes/no), parental education, parental occupation, marital status, and residence (city, suburb, or rural).

Statistical Analysis—Sample characteristics were summarized by descriptive statistics. Student's t test and ANOVA were used to examine gender and age differences in blood lead

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concentrations, respectively. We used linear regression to examine the relationship between blood lead concentration (μg/dL) and behavior T scores while controlling for child and family characteristics (gender, residence, parental education, father's occupation, single child status, marital status of parents, and IQ). We treated blood lead concentration as a continuous linear term with units of μg/dl. Age in months at time of blood test was included in the above analysis, while age at time of behavior assessment was not included since all children were tested at 6 years. The demographic variables were selected based on past studies[22,34] and/or our preliminary analyses indicating these variables were associated with either or both blood lead concentration and behavioral problems. Behavior T scores that were not normally distributed were log transformed.

Since the internalizing and externalizing behavior scores differ by gender in this sample[28] and associations between blood lead concentration and behavior assessments may vary with age at blood lead test,[35] we tested several interactions of age by gender. Logistic regression analysis did not find any age by gender interaction ($p>0.05$) on the risk of behavior problem, adjusted by squared lead concentration. We regressed behavior problem scores on spline modeled blood lead concentration,[36] while adjusting for child and family characteristics; we further tested two sets of interaction of Blood Lead Concentration by gender, and by 3 age groups (3, 4, and 5 years) separately. Given the significant interaction of Blood Lead Concentration by gender for internalizing problems ($p=0.008$), we separated the data into six strata by gender and age to examine the relationship between Blood Lead Concentration and behavioral problems.

We finally performed logistic regression analyses to examine the association between blood lead concentration and odds of clinical-level behavioral problems. A p-value<.05 was considered significant. We analyzed data using R, Version 2.15.2 (R Development Core Team, GNU General Public License) for spline modeling and IBM SPSS Statistics, Version 17 (SPSS Inc., Chicago, IL, USA) for all other analysis.

RESULTS

Of the 1341 children with blood lead concentrations available, 1025 children had complete data. Compared with those without complete data, We found no group difference on gender, age group, and residence location. Characteristics of the children and their families, are summarized in Table 1. Mean blood lead concentration was 6.4 μg/dL (SD=2.6). Distribution was as follows: 25% were ≤4.7 μg/dL, 50 % were ≤6.2 μg/dL, 75% were ≤7.7 μg/dL and 90% were ≤9.4 μg/dL. As shown in Table 2, mean concentration was higher in boys than in girls and increased with age at blood lead test for both boys and girls.

Blood lead concentration and behavior scores

Our linear regression model indicated that all teacher-reported behavior scales scores increased with blood lead concentration after adjusting for children and family factors (Table 3). Blood lead concentration had statistically significant harmful associations with scores on emotional, anxiety and pervasive developmental problems. One μg/dL increase of blood lead concentration resulted in a 0.32, 0.25 and 0.30 increase of behavior scores on emotional reactivity, anxiety/depressed and pervasive developmental problems, respectively

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(p <0.05). No parent-reported behavioral scales were significantly correlated with blood lead concentration.

We used spline modeling to examine the relationships between blood lead concentration and two broadband problems (internalizing and externalizing) [26] in each of the six strata by gender and age groups (3, 4 and 5 years).

Behavior scores for internalizing problems increased with blood lead concentration for girls at age 5 years (p=0.04) and age 4 years (p=0.048) (Figure 1). Behavior scores slightly increased with blood lead concentration for boys at age 5 years and slightly decreased for boys at age 4 years.

Behavior scores for externalizing problems increased with blood lead for boys at age 5 (Figure 2). In the group with blood lead measurements at age 3 years, no clear relationship was observed for either gender (Data available upon request).

Blood lead concentration and clinical-level behavioral problems

Logistic regression was conducted to examine the association between blood lead concentrations) and clinical level behavioral problems (ie., T-score ≥ 60). Odds ratio was used to present the strength of the association. In the unadjusted logistic regression analysis, blood lead concentration was significantly associated with increased odds for attention, internalizing and total problems, as well as for DSM-oriented pervasive developmental and attention deficit/hyperactivity. After adjusting for child and family characteristics, blood lead concentration was still significantly associated with increased odds for emotionally reactive (OR=1.10, 95%CI=1.02 – 1.19), anxious/depressed (OR=1.12, 95%CI=1.03 – 1.23), total internalizing problems (OR= 1.10, 95%CI= (1.03 – 1.18),as well as DSM-oriented anxiety (OR=1.10, 95%CI= 1.01 – 1.19) and pervasive developmental problems (OR=1.16, 95%CI=1.07 – 1.25) (Table 4). For example, a 1 μg/dL increment in blood lead concentration was associated with a 16% increased likelihood of having pervasive developmental problems.

We did not find any significant associations between blood lead concentration and parent-reported clinical-level behavioral problems (p>0.05) (Data available upon request)

DISCUSSION

Key findings

In these 1341 children from the China Jintan Child Cohort Study, we found that blood lead concentration at mean levels of 6.4 μg/dL, when children were at ages 3–5 years, was significantly associated with increased behavioral problem scores at age 6 years. The findings are consistent with previous studies.[2,5,7–8,14,35,37] We also found that the risk of clinical-level behavioral problems increased with blood lead concentration, including total internalizing problems and DSM-oriented anxiety and pervasive developmental problems. This association showed different patterns depending on age and gender. The results held after adjusting for potential child and family cofounders.

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Age, blood lead concentrations, and behavior

Blood lead concentration increased with age in children before school age (Table 2), which is consistent with past studies in China.[38–41] The blood lead concentration and age association in China are different from those in the US, where blood lead concentration increases with age in children up to ages 2–3 years and then declines.[42] This may be due to different sources of lead exposure in these two countries,[22] as well as China's phasing out of leaded petroleum beginning in 1997 and completed around 2000.[43–44] This transition suggests that our cohort (born between 1999–2001) might have less lead exposure than those born earlier.

The blood lead concentration and behavior association also varied with the age of the child at the time of blood lead measurement. In our stratified analysis by age at the time of blood lead measurement, we found that there was an increased risk for behavioral problems with increased blood lead concentration in older children (5 and 4 years old) but not in 3-year-old children (Figure 1–2). Our findings are consistent with patterns reported by Chen et al.[35] where blood lead concentrations at 7 years had a direct effect on concurrent behavioral problems, while blood lead concentration at 2 years was not associated with behavior at age 7 years. Similar effects were reported by Hornung et al.[42]: blood lead concentrations at age 6 years were more strongly associated with cognitive and behavioral development than those measured in early childhood. Adult gray matter brain volume reduction is also more highly associated with blood lead concentrations at 5 and 6 years compared to those measured at earlier ages.[45] Taken together, these findings suggest that relatively high blood lead concentrations beyond infancy and toddlerhood can have detrimental effects on behavior.

Gender, blood lead concentrations, and behavior

Though males in this study had higher mean blood lead concentrations than females (Table 2), the association with behavior was more consistent in females when taking into account the time that had elapsed since blood lead measurement (Figures 1 and 2). Separate logistic regression analyses by gender also showed stronger associations between blood lead concentration and increased risk for behavioral problems for girls (Table 4). Results of other studies examining cognitive and behavioral effects of lead exposure between genders have been mixed.[7,14,45–48] Nevertheless, few studies have specifically examined the effects of blood lead concentration on behavior by age and gender or they have treated sex/gender only as a covariate. Our findings could partially reflect biological and sociological differences between genders, such as different sensitivities to lead and its effects on the development of particular brain areas.[49–50] For instance, animal models suggest that whereas lead exposure may alter hippocampal glial metabolism and induce behavioral alterations of hyperactivity in male rats,[51] female rats exposed to lead may have attenuated hippocampus potentiation[52] and express depressive-like behavior not seen in male counterparts.[53] More studies on susceptibility to environmental toxicants between genders are warranted.

Blood lead levels and internalizing behavior problems

Previous research has reported associations between blood lead concentration and externalizing problems in children and adolescents, including attention-related[3,6,12,54] and

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conduct problems.[7–9,37] Our spline model also indicate that increased blood lead concentration is associated with increased risk for externalizing behavior score in boys at age 5 years (Figure 2). Our logistic regression analysis, however, show significant relationships between blood lead concentration and the internalizing problems of anxiety and depression. Our findings extend those from Liu et al.[55] that in young Chinese children, adverse outcomes of child temperament, including withdrawal and mood, were associated with lead exposure from electronic waste recycling. Our findings also support past findings of significant problems with anxiety, emotion regulation, and frustration tolerance in lead-exposed toddlers,[5] as well as anxiety and emotional problems in young children.[14,56] Indeed, recent experimental animal studies suggest that lead exposure may induce anxiety and withdrawal by altering the hypothalamic-pituitary axis and neurotransmitter systems.[57–58]

In this study, increased blood lead concentration was associated with an increased risk of DSM-oriented pervasive developmental problems as measured by 13 items like *Avoids eye contact*, *Can't stand things out of place*, *Shows little affection*, *Speech problem*, and *Withdrawn*[26] for both genders, though the association was stronger for girls. Pervasive developmental conditions are associated with the development of clinical psychiatric disorders such as autism, [59–60] and degrees of severity in autism spectrum disorder are reportedly well-correlated with elevations in lead, mercury, and copper concentrations.[61] However, our results should be interpreted with caution as we used only a relatively non-specific CBCL subscale rather than gold standard clinical diagnostic scales. In addition, we cannot conclude whether or not the difference in findings for internalizing compared to externalizing behavior can be contributed to cultural underpinnings.

Because behavior may be influenced the setting in which it occurs, such as the home or school, the use of multiple informants is valuable in assessing children's behavioral and emotional problems.[28] For example, caregivers may be better at detecting disruptive problems, while teachers have been found to be better informants on hyperactivity/inattentiveness[62] and internalizing problems in preschool children.[63] In the present study, we found blood lead concentration was significantly associated with teacher-reported behavioral problems, especially in internalizing and developmental problems, but not with parent-reported problems.One possible explanation is that teachers are exposed to relatively large groups of same-aged children and may be more sensitive to behavioral deviations than parents. This may be particularly relevant in China, where most parents' understanding of child behavior is limited to their only child due to the single-child policy. It is also possible that teachers' perceptions of child behavior may be less susceptible to the influence of their own psychopathology and levels of stress, whereas this is not necessarily true for parents.[64]

Limitations

Several limitations of this study should be acknowledged. First, because we measured blood lead concentration once from 3–5 years of age, it is unclear if problems seen at 6 years of age reflect lead exposure at measurement, during the prenatal period, or during the first 2 years of life. Second, we measured behavior using teacher and parent reports rather than clinical diagnosis. Third, although we adjusted for parental education, work, and residence,

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there may be other cofounders we did not control for that affected teacher report of behavioral problems. Finally, we did not assess behavioral problems at the time blood lead concentrations were measured: it is thus possible that behaviors associated with developmental disorders (e.g. pica) contribute to elevated blood lead concentrations.[61,65]

Conclusion and implications

Childhood lead poisoning is well documented and persists as a major, yet preventable, global public health problem. Lead-related health problems cost $43.4 billion annually in the United States.[66] Lead exposure remains common in Chinese children,[67–68] and nearly one-quarter of children in China have blood lead concentrations >10 μg/dL, with a relatively high mean of 8.1 μg/dL.[69] The comparatively low mean blood lead concentration (6 μg/dL) in our sample, which is from the small city of Jintan, may be due to better environmental conditions in China's smaller cities than in its larger metropolises.[70]

Our findings show that frequently encountered blood lead concentrations in preschool children are associated with increased behavioral problems, especially internalizing problems in children at 6 years. To our knowledge this is one of the first studies to comprehensively examine the relationship between blood lead concentrations and behavioral problems in a large sample of young, Chinese children. This study contributes further evidence that blood lead concentrations even below the CDC's previously defined level of concern, <10 μg/dL, are harmful[71–72] and that exposures now commonly encountered in China may have implications for children's behavioral developments. As such, continued monitoring of blood lead levels as well as clinical assessments of mental behavior during regular pediatric visits may be warranted. Further examination is needed to more clearly delineate the biological effects of environmental lead exposure and resulting behavioral impairments among children and to assess the long-term clinical significance of these findings.

Acknowledgments

Jianghong Liu had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Funding Source: This work was supported by an NIEHS grant, R01-ES018858; K01-ES015 877; K02-ES019878-01 (US); The Wacker Foundation (Texas, USA); Jintan City Government, China; and Jintan Hospital, China. Dr. Rogan was supported by the Intramural Research Program at NIEHS, US.

Abbreviations

CBCL	Child behavior checklist
CI	Confidence Interval
C-TRF	Caregiver-Teacher Report Form
DSM	Diagnostic and Statistical Manual
IQ	Intelligence Quotient
OR	Odds ratio

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WPPSI-R Wechsler Preschool and Primary Scale of Intelligence-Revised

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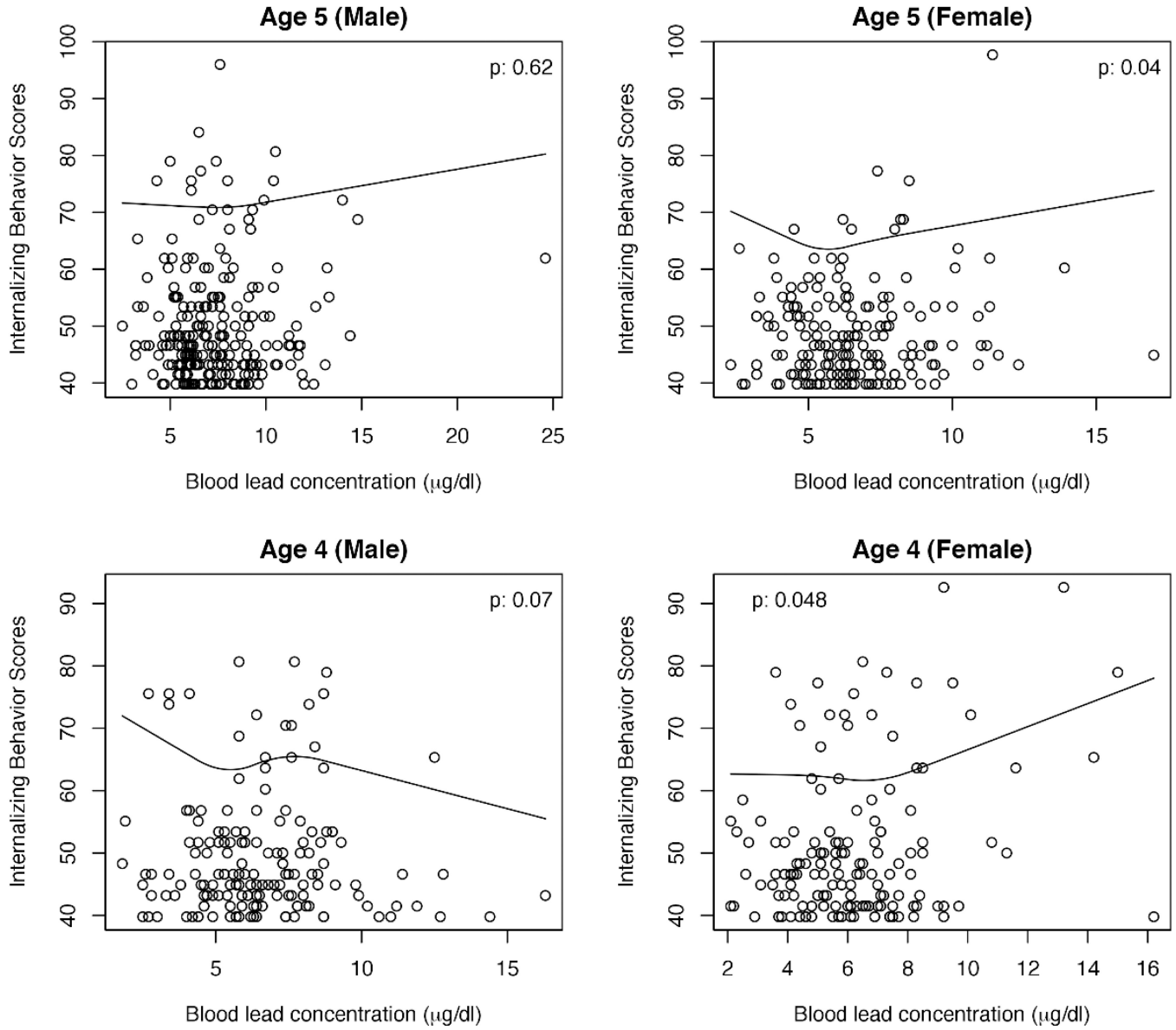

Figure 1.

Teacher-reported internalizing problem scales scores among children whose blood lead was measured at age 4 and 5 years. Solid lines are the fitted spline curves. P values of testing significance (F test) are shown in the upper corners of each plot.

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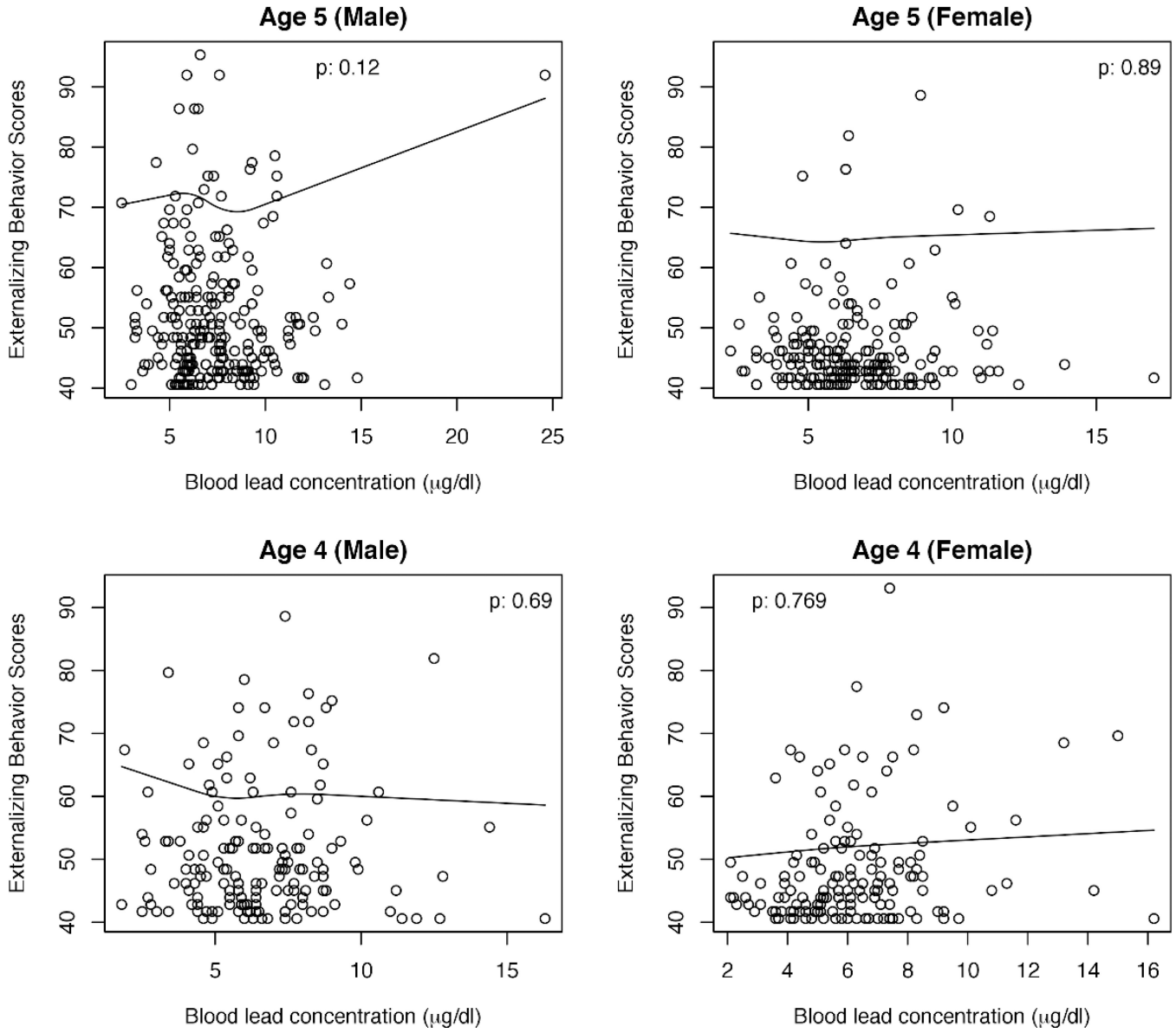

Figure 2.

Teacher-reported externalizing problem scales scores among children whose blood lead was measured at age 4 and 5 years. Solid lines are the fitted spline curves. P values of testing significance (F test) are shown in the upper corners of each plot.

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Table 1

Frequency and percentage of baseline characteristics of study population (n=1341) by blood lead categories.

			Blood lead concentration[a] category			
			(1.8, 4.7]	**(4.7,6.2]**	**(6.1,7.7]**	**(7.7,32]**
	N	**Mean**	**n (%)**	**n (%)**	**n (%)**	**n(%)**
Sex						
Male	737	6.75	161 (48.06%)	185 (52.71%)	184 (54.76%)	207 (65.51%)
Female	601	6.03	174 (51.94%)	166 (47.29%)	152 (45.24%)	109 (34.49%)
Age at blood lead test (years)						
3	314	5.17	158 (47.16%)	61 (17.38%)	55 (16.37%)	40 (12.66%)
4	414	6.46	102 (30.45%)	111 (31.62%)	105 (31.25%)	96 (30.38%)
5	610	7.05	75 (22.39%)	179 (51%)	176 (52.38%)	180 (56.96%)
Residence						
City	518	6.33	150 (44.78%)	125 (35.61%)	114 (33.93%)	129 (40.82%)
Suburban	538	6.27	144 (42.99%)	140 (39.89%)	143 (42.56%)	111 (35.13%)
Rural	282	6.91	41 (12.24%)	86 (24.5%)	79 (23.51%)	76 (24.05%)
Father's Education						
≤Middle school	486	6.72	100 (31.06%)	123 (38.8%)	119 (37.9%)	144 (45.57%)
High School	408	6.4	113 (35.09%)	95 (29.97%)	103 (32.8%)	97 (30.7%)
College or Higher	375	5.99	109 (33.85%)	99 (31.23%)	92 (29.3%)	75 (23.73%)
Father’s occupation						
Unemployed	50	6.22	13 (4.18%)	12 (3.92%)	13 (4.05%)	12 (4.17%)
Physical worker	692	6.46	167 (53.7%)	164 (53.59%)	197 (61.37%)	164 (56.94%)
Professional worker	484	6.37	131 (42.12%)	130 (42.48%)	111 (34.58%)	112 (38.89%)
Mother’s education						
≤Middle school	638	6.71	137 (42.41%)	156 (49.37%)	157 (50%)	188 (59.31%)
High School	376	6.08	114 (35.29%)	89 (28.16%)	95 (30.25%)	78 (24.61%)
College or Higher	256	6.08	72 (22.29%)	71 (22.47%)	62 (19.75%)	51 (16.09%)
Marital status of parents						

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			Blood lead concentration[a] category			
			(1.8, 4.7]	**(4.7,6.2]**	**(6.1,7.7]**	**(7.7,32]**
	N	**Mean**	**n (%)**	**n (%)**	**n (%)**	**n(%)**
Married	1123	6.34	280 (95.89%)	294 (95.15%)	276 (95.83%)	273 (95.12%)
Divorced	53	6.44	12 (4.11%)	15 (4.85%)	12 (4.17%)	14 (4.88%)
Only Child						
Yes	943	6.3	254 (85.52%)	240 (83.92%)	244 (80.26%)	205 (75.09%)
No	217	6.87	43 (14.48%)	46 (16.08%)	60 (19.74%)	68 (24.91%)

[‡]Number of children differs across sample characteristics due to missing values.

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 2

Distribution of blood lead concentrations[a] by age and gender

Age	Male					Female					p
	N	Mean	Median	SD	(Min.,Max.)	N	Mean	Median	SD	(Min.,Max.)	
3 years	174	5.51	5.1	2.47	(2.1,17)	142	4.76	4.4	2.11	(1.8,12.6)	.005
4 years	217	6.72	6.4	3.28	(1.8,32)	198	6.18	6.0	2.28	(1.9,16.2)	.051
5 years	347	7.39	7.0	2.48	(2.5,24.6)	263	6.61	6.3	2.24	(2.3,18.1)	<.0001
Total	748	6.75	6.4	2.83	(1.8,32)	603	6.03	5.9	2.34	(1.8,18.1)	<.0001

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 3

Adjusted regression coefficients (95%CI) of blood lead concentration[a] on behavioral problems[‡]

Behavioral Problems	Parent-reported behavior (CBCL) (n=1026)	Teacher-reported behavior (C-TRF) (n=1025)
Syndrome		
Internalizing Problems	−0.029 (−0.28, 0.222)	0.223 (−0.037, 0.484)
Emotionally Reactive	−0.117 (−0.365, 0.131)	0.322 (0.058, 0.587)*
Anxious/Depressed[T]	0.101 (−0.151, 0.354)	0.001 (−0.001, 0.003)
Somatic Complaints[T]	−0.171 (−0.436, 0.094)	0.001 (−0.003, 0.001)
Withdrawn	0.096 (−0.158, 0.349)	0.001 (−0.001, 0.003)
Sleep Problems	0.016 (−0.241, 0.273)	NA
Externalizing Problems[T]	0.011 (−0.243, 0.265)	0.001 (−0.001, 0.003)
Attention Problems[P]	0.001(−0.002, 0.002)	0.136 (−0.115, 0.386)
Aggressive Behavior[T]	−0.018 (−0.264, 0.229)	0.001 (−0.001, 0.003)
Total Problems	0.016 (−0.231, 0.263)	0.202 (−0.051, 0.455)
DSM-oriented problems		
Affective Problems[T]	0.019 (−0.234, 0.272)	0.001 (−0.001, 0.003)
Anxiety Problems	0.044 (−0.212, 0.299)	0.253 (0.016, 0.500)*
Pervasive Developmental problems	0.093 (−0.159, 0.345)	0.303 (0.046, 0.560)*
Attention deficit/hyperactivity problems[P]	0.001 (−0.002, 0.002)	0.073 (−0.177, 0.322)
Oppositional Defiant[T]	−0.030 (−0.279, 0.220)	0.223 (−0.037, 0.484)

[‡]Adjusting for age at blood lead test, sex, residence, father's education, mother's education, father's occupation, parents' marital status, single child, and IQ

[T]Teacher-reported scale score was log transformed for normal distribution

[P]Parent-reported scale score was log transformed for normal distribution

*p<.05

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 4

Adjusted odds ratios (OR, 95%CI) of blood lead concentration[a] on Teacher-Reported behavioral problems (C-TRF).

	Total (n=1021)	Boys (n=557)	Girls (n=464)
Internalizing problems	1.10 (1.03 – 1.18)**	1.09 (1.00–1.19)	1.12(1.00–1.26)*
Emotionally Reactive	1.10 (1.02 – 1.19)*	1.04 (0.94–1.16)	1.17 (1.03–1.34)*
Anxious/Depressed	1.12 (1.03 – 1.23)*	1.11 (0.98–1.24)	1.14 (0.98–1.32)
Somatic Complaints	1.01 (0.90 – 1.13)	1.08 (0.94–1.24)	0.91 (0.75–1.09)
Withdrawn	1.02 (0.93 – 1.12)	0.98 (0.87–1.11)	1.09 (0.94–1.26)
Externalizing problems	1.02 (0.95 – 1.10)	0.99 (0.91–1.08)	1.08 (0.93–1.25)
Attention Problems	1.07 (0.98 – 1.16)	1.05 (0.95–1.16)	1.09 (0.93–1.27)
Aggressive Behavior	1.07 (0.98 – 1.17)	1.03 (0.93–1.14)	1.21 (0.99–1.47)
Total Problems	1.06 (0.99–1.12)	1.02 (0.95–1.10)	1.11 (0.99–1.23)
DSM-oriented problems			
Affective problems	1.04 (0.96 – 1.13)	1.06 (0.96–1.18)	1.03 (0.90–1.18)
Anxiety problems	1.10 (1.01 – 1.19)*	1.05 (0.94–1.17)	1.17 (1.03–1.34)*
Pervasive Developmental problems	1.16 (1.07 – 1.25)***	1.11 (1.00–1.23)*	1.22 (1.07–1.40)**
Attention deficit/hyperactivity problems	1.08 (0.99 – 1.18)	1.04 (0.94–1.16)	1.15 (0.98–1.35)
Oppositional Defiant problems	1.06 (0.98 – 1.15)	1.02 (0.92–1.13)	1.12 (0.97–1.29)

‡Adjusting for age at blood lead test, sex, preschool residence, father's education, mother's education, father's occupation, parent married status, single child, and IQ

*p<.05,

**p<.01,

***p<.001

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

Annu. Rev. Med. 2004. 55:209–22
doi: 10.1146/annurev.med.55.091902.103653
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First published online as a Review in Advance on Aug. 18, 2003

LEAD POISONING

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■ **Abstract** Understanding of lead toxicity has advanced substantially over the past three decades, and focus has shifted from high-dose effects in clinically symptomatic individuals to the consequences of exposure at lower doses that cause no symptoms, particularly in children and fetuses. The availability of more sensitive analytic methods has made it possible to measure lead at much lower concentrations. This advance, along with more refined epidemiological techniques and better outcome measures, has lowered the least observable effect level until it approaches zero. As a consequence, the segment of the population who are diagnosed with exposure to toxic levels has expanded. At the same time, environmental efforts, most importantly the removal of lead from gasoline, have dramatically reduced the amount of lead in the biosphere. The remaining major source of lead is older housing stock. Although the cost of lead paint abatement is measured in billions of dollars, the monetized benefits of such a Herculean task have been shown to far outweigh the costs.

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INTRODUCTION

In recent years, the focus in lead poisoning has shifted away from adults exposed to high doses in industrial settings to the larger population of asymptomatic children with lesser exposures. This chapter surveys the past three decades of lead research and reviews the evolving knowledge of the distribution, toxicology, and remediation of lead toxicity.

EARLY HISTORY

Warnings of lead's poisonous properties extend at least as far back as the second century B.C., when Nikander, a Greek physician, described the colic and paralysis that followed lead ingestion. The early victims of lead toxicity were mainly lead workers and wine drinkers. Lead's sweet flavor made it useful in winemaking, to counteract the astringent flavor of tannic acid in grapes. Lead-sweetened wine, containing as much as 20 mg of lead per liter, was an important part of the diet of upper-class Romans. The synchronous decrease in fertility and increase in psychosis among the Roman aristocracy has raised speculation implicating lead poisoning in the fall of Rome (1).

Widespread outbreaks of lead colic continued in Europe until as late as the sixteenth century, when Eberhard Gockel, a German physician, traced a colic epidemic to lead-adulterated wine. Duke Ludwig of Würrtemberg, upon learning of an epidemic of lead colic in his duchy, banned its use in winemaking, imposing the death penalty for violators.

Workers in the metals trades remain an important risk group; lead exposure remains one of the leading causes of workplace illness. In the United States, more than 320,000 American workers were occupationally exposed to lead in 1998.

DISCOVERY OF CHILDHOOD LEAD POISONING

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It was only a century ago that childhood lead poisoning was recognized. The rapid growth of scientific understanding can be divided into four stages. The first reports of lead-poisoned children in Brisbane, Australia, in 1892 were greeted with widespread disbelief that lead toxicity could afflict children (2). Although the disease had reached epidemic proportions, there was considerable doubt that lead was the cause. Many of the homes in Brisbane were raised on piles, with large wooden-enclosed verandas that served as play areas for children. The rails were painted with white lead, which chalked and powdered in the hot Brisbane sun. The cause of the epidemic, lead-containing paint, was established in 1904, and lead paint was banned for household use in Brisbane in 1920.

Childhood lead poisoning was first described in the United States in 1914 (3). The prevailing belief in the second stage of knowledge was that acute poisoning had only two outcomes: death or complete recovery without any residua. This misconception was discarded in 1943 with the first follow-up of children who had recovered from acute toxicity. Nineteen of 20 surviviors had significant deficits: behavioral disorders, learning difficulties, and school failure (4). In this third stage, it was generally accepted that lead toxicity caused long-term deficits, but these deficits were thought to occur only in those children who had displayed clinical signs of encephalopathy during the acute episode. The fourth stage began in the 1970s, when studies of children with no clinical signs of toxicity showed deficits in IQ scores, attention, and language (see below).

TOXICOLOGY OF LEAD

Lead is a divalent cation, and it binds strongly to sulfhydryl groups on proteins. Of the many organs affected by lead, the most important is the central nervous system (CNS). Much of lead's toxicity can be attributed to distortion of enzymes and structural proteins, but this versatile toxicant has many other targets. Lead interferes with the development of the endogenous opiate system (5). It efficiently cleaves the ribophosphate backbone of tRNA catalytically at specific sites, with no evidence of a threshold (6). Many of lead's toxic properties are due to its ability to mimic or compete with calcium. At picomolar concentrations, lead competes

successfully with calcium for binding sites on cerebellar phosphokinase C and thereby affects neuronal signaling (7). It inhibits calcium entry into cells (8). Lead is picked up by mitochondria and produces swelling and distortion of mitochondrial cristae. Uncoupled energy metabolism, inhibited cellular respiration, and altered calcium kinetics follow (9). Lead has a binary impact on neurotransmitter release: Spontaneous neurotransmitter release is enhanced, whereas stimulated release is inhibited (10).

Attention has also focused on the heme synthetic pathway, where many sites for lead activity are found. Delta aminolevulinic acid dehydratase is extremely sensitive to lead. Inhibition of this enzyme results in increased circulating aminolevulinic acid (ALA). ALA is a weak gamma-aminobutyric acid (GABA) agonist that decreases GABA release by presynaptic inhibition. Increased circulating ALA may account for some of the behavioral disorders seen in patients with porphyria and perhaps in lead toxicity.

Lead has diverse impacts on the CNS. Immature astrocytes are sensitive to lead, and lead interferes with myelin formation and the integrity of the blood-brain barrier (11). Lead interferes with the synthesis of collagen and affects vascular permeability. At high enough doses, this results in brain edema and hemorrhage (12). At lower doses, lead given to lactating rats interferes with synaptogenesis in their pups (13). Lead's interference with brain development has been demonstrated using the rodent barrel field cortex as a model (14).

Behavioral alterations secondary to lead exposure in rodents and primates are analogous to changes in humans. In one study, monkeys received lead acetate in their food from birth to 200 days of age and achieved blood lead levels ranging from 3 μg/dl to 25 μg/dl. At 7 to 8 years, they were given a delayed alternation test, in which the critical positive stimulus was alternated. Treated monkeys showed impaired ability to learn, particularly at longer intervals of delay (15). Lead-exposed primates also demonstrate impaired social function (16). Rodents given lead show deficits in learning mediated by dopaminergic and glutamatergic systems (17). In one interesting report, untreated rats found 15% solutions of alcohol aversive in a free-choice situation, but when their blood lead levels were raised to 61 μg/dl, they increased their alcohol intake in both free- and forced-choice paradigms (18). The author speculated that lead increased the irritability of the rats and that they sought alcohol as a tranquilizer.

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CLINICAL ASPECTS OF TOXICITY

Although adult lead poisoning is mainly of occupational origin, cases of acute lead poisoning from leaded dishware, bootlegged moonshine liquor, certain cosmetics, and folk remedies continue to be reported. Lead is still mined and smelted, although this has declined with the removal of lead from gasoline.

Lead poisoning in adults can affect the peripheral and central nervous systems, the kidneys, and blood pressure. Classical descriptions of occupational toxicity

depict peripheral neuropathy with wrist or foot drop. At lesser exposures, slowed peripheral nerve conduction has been reported (19). Patients with high blood lead levels may present with severe, intractable colic, motor clumsiness, clouded consciousness, weakness, and paralysis. Lead has adverse effects on both male and female reproduction. The fetotoxic properties of lead were known to British factory inspectors at the end of the nineteenth century; they found a high incidence of stillbirths (60%), neonatal deaths, and a decreased fertility rate in women employed in the ceramic industry (20). Males may manifest decreased sperm counts and teratospermia (21).

Hypertension has been associated with acute lead poisoning, along with renal failure. At lesser exposures, both experimental and epidemiological evidence of interference with renal function and elevations in blood pressure have been reported. Using data from the third National Health and Nutrition Examination Survey (NHANES III), a recent reevaluation of blood pressure in relation to contemporary blood lead levels found that black men and women had higher blood lead levels (5.4 μg/dl, 3.4 μg/dl) than their white counterparts (4.4 μg/dl, 3.0 μg/dl). Black subjects, both men and women, had a statistically significant association of blood lead with blood pressure after covariate adjustment. The association was not seen in whites (22).

In its alkyl form, lead is a powerful neurotoxin. When tetraethyl lead (TEL) was first produced for use as a motor fuel additive in 1925, workers at all three operating plants began to die. After a brief moratorium imposed by the Surgeon General, production resumed and continued until the 1980s. TEL is fat-soluble; absorption through the skin and uptake by the brain is rapid. Because of growing evidence of neurotoxic effects at low doses, TEL was removed from gasoline in stepwise fashion beginning in 1978.

Lead has been classified as an animal carcinogen, but the data on human carcinogenesis are considered inadequate. Some recent studies of cancer rates in lead trade workers (e.g., smelters, painters, body and fender repairmen) have shown an increase in standard mortality rates, but others have not (23).

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CHILDHOOD LEAD TOXICITY

Children are more sensitive to lead than adults for several reasons: Their exposure is increased by their universal hand-to-mouth activity; their gut absorbs lead more readily than an adult's; and the developing CNS is more vulnerable to toxicants than the mature CNS.

At high doses, generally blood lead levels >60 μg/dl, clinical symptoms become visible in children. Abdominal pain and arthralgia are common early complaints. Clumsiness and staggering may be seen, followed by headache and behavioral changes, which are signs of early encephalopathy. This may progress to alterations of consciousness, stupor, and convulsions. Encephalopathy, fortunately, has become rare in the United States. A high percentage of those children who recover

from clinical encephalopathy have severe cognitive, attentional, and behavioral impairments.

ASYMPTOMATIC LEAD TOXICITY

In the 1960s, the accepted toxic threshold for lead in children was 60 μg/dl. Screening studies in eastern U.S. cities found that 10%–20% of inner-city children had blood lead levels over 40 μg/dl. This finding raised the conjecture, first made by Byers & Lord in 1943, that a proportion of school failure and behavioral disorder resulted from unrecognized lead toxicity. Five studies of lead levels and behavior in children without signs or symptoms of classical lead toxicity were undertaken in the early 1970s. Three reported an association between lead and IQ (24–26); two did not (27, 28). These early studies were constrained by design flaws: The number of subjects in each study was small, and each relied on blood lead levels to rank exposure. Blood lead, a short-term marker, may misclassify earlier exposure. Lead in blood has a half-life of 35 days. Exposure peaks at two years, then drops. Most studies enrolled children at about age 6 or later. There are no data on the validity of blood lead measurements four years after exposure has ended. Some studies used relatively insensitive outcome measures, such as group or screening tests. Control of confounders and statistical procedures was limited. Some investigators studied clinic samples and their data may thus have suffered selection bias.

In 1979, we conducted a study that attempted to address these design issues. Lead concentration in deciduous teeth was selected as the marker of exposure. The sample comprised asymptomatic primary school students from the public schools of Chelsea and Somerville, Massachusetts. Subjects were classified on a large number of covariates, and these were controlled in the analysis by Analysis of Covariance (ANCOVA). Excluded were children with a history of lead exposure or toxicity. Children with elevated lead levels (in the ninetieth percentile for lead concentration) in their teeth were found, after covariate control, to be significantly impaired on the Wechsler Intelligence Scale for Children—Revised (WISC-R) IQ test, on language processing, and on reaction time under varying conditions of delay, a measure of attention. When teachers' ratings of 2146 children on an 11-item forced-choice scale were classified by dentine lead level, we found a dose-dependent increase in bad classroom behavior in direct relation to tooth lead level (Figure 1) (29).

In the 1980s, following the removal of lead from gasoline, the blood lead levels in the referent group dropped. This enabled well-designed studies, employing larger samples, better measures of outcome and lead burden, and more sophisticated statistical analyses, to discover effects of lower blood lead levels (30–33). Three meta-analyses confirmed that low-level lead exposure was associated with IQ deficits (34–36). In response to the new data, in 1991, the Centers for Disease Control revised its limit of acceptable blood lead level downward in steps, from 60 μg/dl in the 1970s to its current status of 10 μg/dl.

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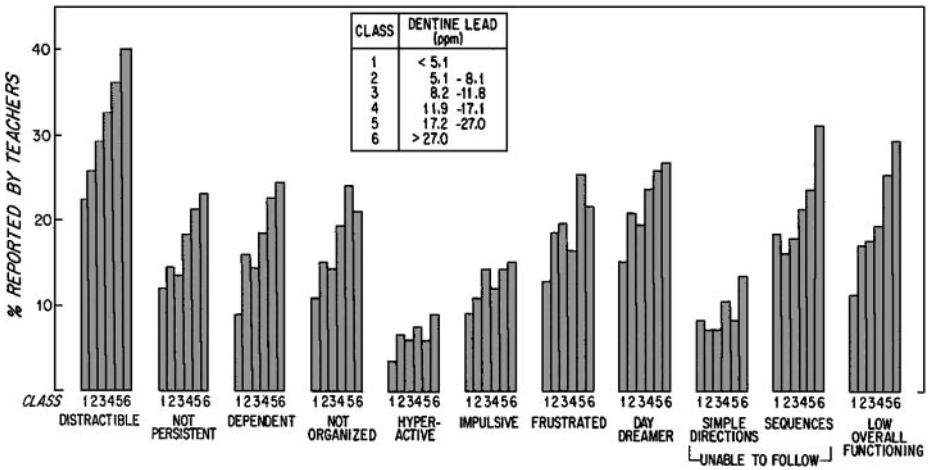

Figure 1 Distribution of negative teachers' ratings in relation to dentine lead concentrations.

In 2002 and 2003, two new studies found effects at levels below 10 μg/dl, further lowering the observed threshold for effect. Lanphear et al. examined psychological performance and blood lead levels in 4853 children who were NHANES III subjects. The mean blood lead in this sample was 1.9 μg/dl; 2.1% of the sample had blood lead levels in excess of 10 μg/dl. After adjustment for covariates, significant inverse relationships between blood lead and math and reading subtests and the Block Design and Digit Span of the WISC-III were reported down to 2.5 μg/dl (37). Canfield et al. (38) studied 166 36-month-old children whose mean blood lead level was 7.9 μg/dl. Seventy-three percent of the subjects had blood lead levels under 10 μg/dl. Significant inverse relationships were found between IQ scores and lead after covariate adjustment. The slope of the effect was greater at the lower blood levels of lead (38). The import of the recent studies is that a threshold for lead and neurobehavioral function has not yet been demonstrated.

FOLLOW-UP STUDIES OF CHILDREN

The late effects of early-childhood lead exposure have been examined by several investigators, who found persistence of deficits over time. Our subjects, first examined in 1979, were seen again 12 years later at mean age of 18.7 years. Subjects whose dentine lead levels were in the high-lead group (ninetieth percentile) had more school failure, reading disabilities, lower class standing in their final year of high school, and disturbances in fine motor function (39) (Figure 2).

Fergusson et al. followed a sample of New Zealand children into their eighteenth year and reported that elevated lead levels were associated with poorer reading

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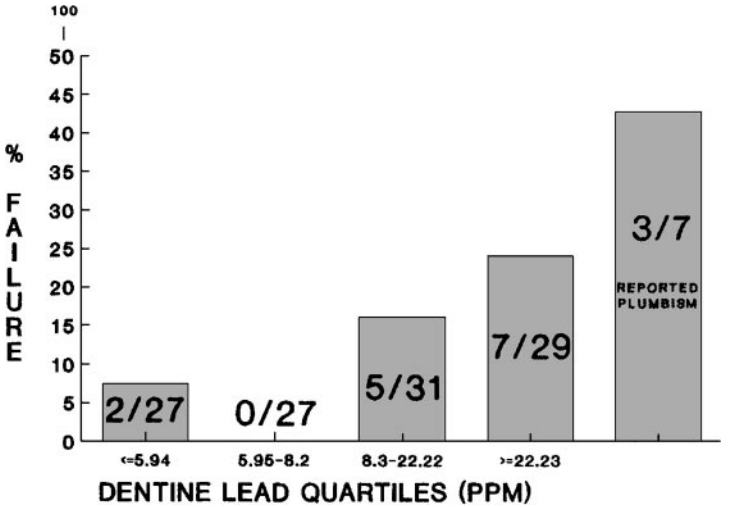

Figure 2 Rate of failure to graduate from high school in relation to dentine lead levels.

scores, more failure to graduate from high school, and poorer examination scores (40).

FORWARD STUDIES OF PRENATAL AND INFANT LEAD EXPOSURE

Bellinger et al. found significant associations between umbilical blood lead levels and neurodevelopmental scores at 2 years of age (41). At later ages, the association between umbilical cord blood lead and outcome was attenuated. The 2-year blood lead concentrations, however, were significantly related to scores at 10 years of age. Exposure at 2 years had no observable threshold, demonstrating neurotoxic effects at blood lead levels below 10 μg/dl.

Dietrich et al. followed a group of 253 children from birth until 6 years of age. Blood lead levels at age 6 were associated with deficits in performance scores of the WISC, after covariate adjustment, and in motor function (42).

LEAD AND BEHAVIOR

Cognitive function, measured by psychometric IQ tests, has been the major focus of most studies of lead exposure in childhood. There are persuasive reasons to believe that cognitive dysfunction may not be the most important effect of lead, and that we may be entering a fifth stage of understanding of lead's effects, in which lead is recognized to adversely affect social behavior.

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This is not an entirely new notion. Parents have frequently reported that after recovery from an episode of acute lead poisoning, their child's behavior changed dramatically, and they became restless, inattentive, and aggressive. In 1943, Byers & Lord reported attentional dysfunction and aggression in a sample of lead-poisoned children on follow-up (4).

We studied 301 primary-school students and found that children with elevated bone lead levels scored higher on the attention deficit, aggression, and delinquency clusters of the Child Behavior Checklist after adjustment of covariates (43). Dietrich et al. found that prenatal lead exposure was associated with parents' reports of delinquency and aggression, and postnatal lead exposure was associated with self reports of delinquent acts (44). A recent case-control study of 195 arrested and convicted delinquent youths found an increased risk of delinquency associated with bone lead concentrations measured by X-ray fluorescence. The covariate-adjusted odds ratio was 4 (95% CL 1.4–11.1). The population-attributable risk for delinquency due to lead exposure ranged from 11% to 38% in this sample (45).

A number of recent ecological investigations correlating leaded gasoline sales or ambient lead levels with crime rates support an association between lead exposure and crime. Stretesky & Lynch compared homicide rates in 3311 counties in the United States (46) After adjustment for 15 covariates, they reported a fourfold increase in homicide rates in those counties with the highest air lead levels compared to controls. Nevin correlated sales of leaded gasoline with violent crime rates and, adjusting for unemployment and percent of population in the high-crime age group, found a statistically significant association (47). It has been speculated that one of the reasons for the recent decline in crime rates is decreased exposure to lead.

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LEAD EFFECTS IN OLDER SUBJECTS

The greatest storage pool for lead is in bone, and the question of lead's fate in older subjects when bone demineralizes has attracted considerable speculation. It is estimated that 50% of trabecular bone in women is lost over a lifetime. Lead is mobilized when bone resorption begins; significantly higher blood lead levels have been measured in postmenopausal women than in premenopausal women (48). Elevated lead appears to adversely affect cognitive function in elderly subjects as well. Older women (mean age 70.5 years) with blood lead levels >8 μg/dl had poorer performance on cognitive measures and slower reaction times than women with blood lead levels <3 μg/dl after covariate adjustment (49).

Results of a large-cohort study of former TEL workers support a causal association between lead and dementia (50). The subjects ($n = 535$) were studied a mean of 16 years after their workplace exposure. The investigators report elevated bone lead levels and dose-related deficits in verbal and visual memory, executive ability, and manual dexterity. TEL workers exhibited a greater decline in function measured at yearly intervals than controls. The same investigators examined the interaction between APOE genotypes with bone lead levels. An interaction effect for bone lead $\times$ APOE genotype was found for 19 of 20 regression models, indicating that the toxic effect of lead is greater in subjects with at least one APOE allele (51).

Lead has induced apoptosis in a number of experimental systems, including rat midbrain (52), rat testis (53), rat fibroblasts (54), rodent lung (55), and rodent retinal rod cells (56, 57). These findings, and similarities in the distribution of lead exposure and the rates of Alzheimer's, make the topic of lead-related dementia worthy of further study.

Lead exposure may also decrease lifespan. This is borne out by a recent study of subjects from the second NHANES study (1976–1980), who were followed up in 1992. The mortality of 4292 subjects with blood lead levels of 20–29 μg/dl was compared to those with levels <10 μg/dl. Subjects with higher lead levels had a 46% increased all-cause mortality, 39% increased cardiovascular mortality, and 68% increased cancer mortality (58).

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DIAGNOSIS AND MANAGEMENT OF CLINICAL LEAD POISONING

In adults, lead toxicity should be considered in the differential diagnosis of abdominal pain, arthralgia, hypertension, severe headache, increased intracranial pressure, CNS dysfunction, anemia, and renal dysfunction. An occupational history and an inventory of possible sources of exposure are useful. A blood lead level >10 μg/dl should be considered elevated, even though clinical symptoms are rarely seen below 60 μg/dl.

Any child with growth failure, abdominal pain, behavior change, hyperactivity, language delay, or anemia should have a blood lead test to rule out lead toxicity.

The cornerstone of lead toxicity management is the termination of exposure. For children, this means inspection of the home, and if this does not reveal lead, a survey of other possible sources. For lead levels >40 μg/dl, chelation therapy is effective in lowering the blood lead level. Calcium disodium edathamil (EDTA) was the preferred method until recently, when dimercaptosuccinic acid (succimer), an oral agent, was found to have equal efficacy. Both agents will reduce an elevated blood lead level to 40%–50% of its baseline. After treatment is concluded (5 days for EDTA, 19 days for succimer), body pools tend to equilibrate, and blood lead levels begin to rise, often requiring repeated courses.

EDTA has drastically reduced the mortality rate from encephalopathy, but its efficacy at lower exposures has never been systematically studied. As a result, whether it conveys any benefit to children without encephalopathy remains unknown.

After succimer had been in use for a few years, a multicenter study evaluated its efficacy in children with moderate elevations of lead (25–44 μg/dl). Blood lead levels in the treatment group were reduced to significantly lower levels than controls at the completion of treatment, but two years later, there were no differences between the two groups. At the conclusion of the study, no significant differences were found between treatment subjects and controls in cognitive, behavioral, or neuropsychological function (59). The only remedy at this time for low-level lead exposure is therefore primary prevention.

PRIMARY PREVENTION

In the early 1970s, the question of silent lead toxicity became the focus of intense controversy because of its regulatory implications. In 1973, when the Environmental Protection Agency began examining the health effects of TEL, industrial representatives claimed that the associations between lead and IQ were spurious, and that removing lead from gasoline would have no impact on body lead burdens. In 1977, after review of the health effects, the Environmental Protection Agency established an air lead standard of 1.5 $\mu g/M^3$. The stepwise removal of lead from gasoline, based on the new air standard, began in the late 1970s. Figure 3 shows the effect of removing lead from gasoline on blood lead levels in the United States between 1975 and 1980.

With the removal of lead from gasoline, a single major source remains for American children: leaded paint. Although it has been banned in household paint since 1971, 80% of the houses built before 1950, or 23,000,000 units, contain leaded paint. A cost-benefit analysis by the Public Health Service estimated the cost of abatement in these houses over a 30-year period at $33.7 billion in 1991. The estimated benefit from avoided health care costs and increased income due to raised IQ was $61.7 billion. This cost analysis may be conservative; it does not include avoided delinquency and cardiovascular disease, both demonstrated effects of lead exposure, among the health effects (60).

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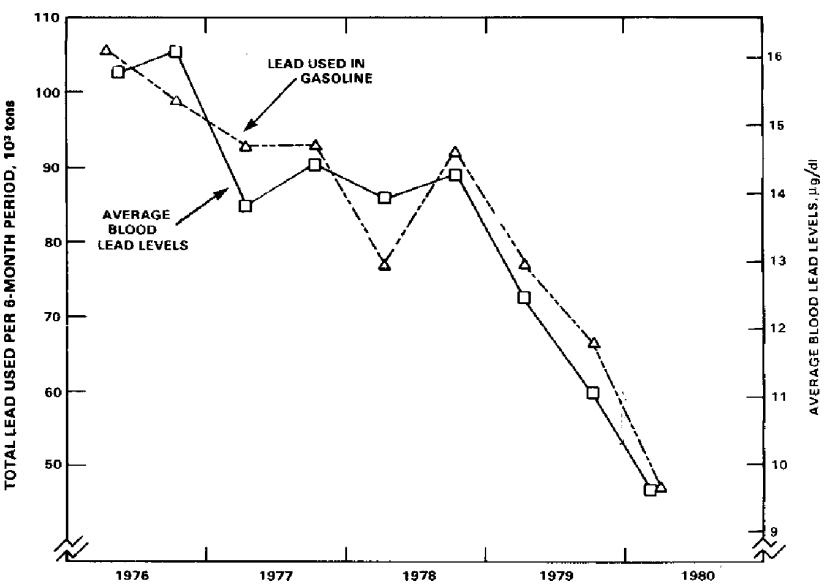

Figure 3 Parallel decreases in blood lead values observed in the NHANES II study and amounts of lead used in gasoline during 1976–1980.

Current analyses also demonstrate that primary prevention yields large economic benefits. Grosse et al. calculated that each present-day preschool child's IQ was increased by 2.2–4.7 points over what it would have been had the reduction in leaded gasoline and blood lead not taken place (61). From this, they calculated the IQ-related increase in income and estimated the economic benefit for each year's birth cohort of 3.8 million children. The benefit range for the 1998 birth cohort was between $110 billion and $319 billion (61). Landrigan et al., assuming no threshold for the lead-IQ association, estimated the loss of future earnings for the one-year cohort of children aged 5 in 1997 at $43.4 billion (62).

The evidence that lead toxicity extends down to the lowest measurable levels, that pharmacological therapies are ineffective at preventing sequelae in those with low levels, and that reduction of exposure yields huge economic as well as health benefits are strong warrants for a systematic program of abatement of lead from the single remaining major source: lead in older homes.

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Flint Water Crisis Caused By Interrupted Corrosion Control: Investigating "Ground Zero" Home

Kelsey J. Pieper, Min Tang, and Marc A. Edwards*

Virginia Tech, Civil and Environmental Engineering, 418 Durham Hall, Blacksburg, Virginia 24061, United States

Supporting Information

ABSTRACT: Flint, Michigan switched to the Flint River as a temporary drinking water source without implementing corrosion control in April 2014. Ten months later, water samples collected from a Flint residence revealed progressively rising water lead levels (104, 397, and 707 μg/L) coinciding with increasing water discoloration. An intensive follow-up monitoring event at this home investigated patterns of lead release by flow rate—all water samples contained lead above 15 μg/L and several exceeded hazardous waste levels (>5000 μg/L). Forensic evaluation of exhumed service line pipes compared to water contamination "fingerprint" analysis of trace elements, revealed that the immediate cause of the high water lead levels was the destabilization of lead-bearing corrosion rust layers that accumulated over decades on a galvanized iron pipe downstream of a lead pipe. After analysis of blood lead data revealed spiking lead in blood of Flint children in September 2015, a state of emergency was declared and public health interventions (distribution of filters and bottled water) likely averted an even worse exposure event due to rising water lead levels.

1. INTRODUCTION

As sources of lead exposure are steadily reduced and attention turns to eliminating all cases of children with elevated blood lead levels (BLLs), exposure to lead in potable water is of increasing concern.[1−6] The existing regulation controlling waterborne lead exposure is the U.S. Environmental Protection Agency (EPA) Lead and Copper Rule (LCR), which allows up to 10% of first draw samples (i.e., samples collected after 6+ hours of stagnation) from high-risk households to exceed the lead action level of 15 μg/L.[7] Water utilities typically implement and maintain corrosion control strategies (e.g., pH/alkalinity adjustments or corrosion inhibitors) to achieve LCR compliance. One popular strategy is dosing orthophosphate (PO_4^{3-}) inhibitors to promote formation of insoluble corrosion scales on pipe walls that reduce lead release (Figure 1a).[8−12]

Several studies have shown that the destabilization of corrosion scales can cause lead and iron problems if deposits begin to dissolve or detach into the water (Figure 1b).[1,4,13−15] For instance, in November 2000, the District of Columbia Water and Sewer Authority changed secondary disinfection chemicals from free chlorine to chloramine in order to comply with new disinfection byproduct regulations.[13] This change in disinfectants destabilized insoluble lead scale layers on pipe surfaces and increased the incidence of dissolved and particulate lead.[13,16,17] Likewise, Providence Water reduced the pH of their finished water in November 2005 from 10.3 to 9.7 in an attempt to minimize lead solubility, but this chemistry modification resulted in the breakdown of lead-bearing iron rust layers and increased total lead and iron in the drinking water, even though it likely decreased soluble lead as

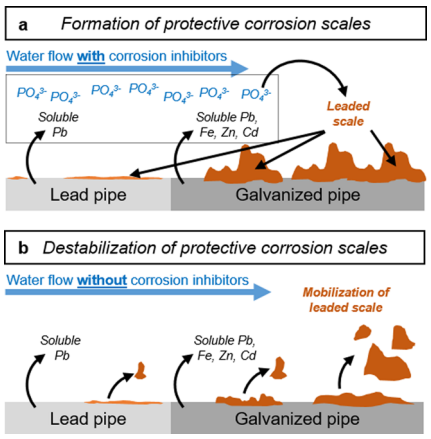

Figure 1. Formation and destabilization of protective scales: (a) corrosion inhibitors (e.g., PO_4^{3-}) control the release of metals from plumbing through the formation of protective scales and (b) without corrosion inhibitors previously formed protective scales can become unstable and deteriorate resulting in high lead and iron in water. Pb = lead; Fe = iron; Zn = zinc; and Cd = cadmium.[14,20]

Received: August 10, 2016
Revised: January 10, 2017
Accepted: January 10, 2017
Published: February 1, 2017

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DOI: 10.1021/acs.est.6b04034
Environ. Sci. Technol. 2017, 51, 2007−2014

planned.[14,18] As a result, the municipality failed to meet the LCR and experienced high levels of red water complaints.[14,19] Thus, changes in water chemistry that once seemed innocuous, can greatly disrupt and impact lead and iron scale, and increase the likelihood of iron and lead particulates in water.

1.1. Source Water Change in Flint, Michigan. On April 25, 2014, Flint, Michigan discontinued purchase of treated water from the Detroit Water and Sewer Department (DWSD) in preparation for the switch to Karegnondi Water Authority in 2016.[21,22] In the interim two-year period before the pipeline was completed, water from an existing treatment plant treating Flint River water was used. Although research and engineering studies were conducted,[22] the water utility did not implement corrosion control (e.g., continue orthophosphate dosing) to meet the provisions of the LCR (Table 1).[7] In addition, to control total trihalomethanes, the utility used ferric chloride ($FeCl_3$) as a coagulant,[21] further increasing the chloride-to-sulfate mass ratio (CSMR) which is a measure of water corrosivity for galvanic connections (e.g., partial lead service lines and lead solder.)[23−25] Since the LCR monitoring pool in Flint did not have 50%+ homes with lead service lines (LSLs) as required and other sampling methods known to reduce the detection of lead in water were used, officials claimed that the city was in compliance with the LCR throughout 2014 and 2015.[21,26−28] After a proper sampling pool and protocol without preflushing was implemented, Flint was acknowledged to have exceeded the action level at least through June 2016.[29−31]

Table 1. CSMR and Corrosion Inhibitors Levels in Flint, Michigan before and after April 25, 2014

parameter	before[32] 2014	after[33] Dec. 2014
phosphate (mg/L as P)	1.07 (0.67−1.69)	absent[21]
chloride (mg/L)	11.4 (4.2−39.8)	80 (74−87)
sulfate (mg/L)	25.2 (11.9−33.9)	39.2 (24.3−45.0)[b]
CSMR[c]	0.45	2.04

[a]Average (minimum-maximum) concentrations reported. [b]Sulfate measured in January 2015 reported in this study (Table SI-2). [c]CSMR calculated using average chloride and sulfate values. CSMR > 0.5 indicates high corrosion potential.[23,24]

A Flint resident whose child was having health problems participated in the 2015 LCR water testing and subsequent follow-up tests, revealing first draw lead concentrations of 104 (February), 397 (March), and 707 μg/L (April; Figure 2) suggesting steadily worsening conditions.[21,27,34] However, samples from this home were excluded from LCR reporting.[31] Immediately after a city official instructed the resident to not use the water for drinking or cooking, one of two twin children living in the home had an elevated BLL (6.5 μg/dL), and an EPA inspection revealed no other lead sources in the home.[21,35] On the basis of the consumers experience and revelation that there was no corrosion control plan, Virginia Tech conducted an intensive follow-up monitoring effort to assess the nature of metal release in the home of this resident (referred to as "Resident Zero") including:[34] (1) 3-D lead profiling as a function of flow volume and flow rate;[15] (2) forensic evaluation of lead leaching from plumbing and destabilization of leaded scales; and (3) association between high lead and other constituents of pipe scale exhumed from the property.

2. METHODS

2.1. Water Samples Collected in January 2015. Resident Zero collected six discolored water samples under normal water use conditions between January 15−30, 2015, to demonstrate to city and state officials that the aesthetic characteristics of the drinking water were deteriorating since the switch to treated Flint River water (Figure 2). The resident later sent these samples stored in 500 mL plastic bottles to Virginia Tech. For each of these samples, a 10 mL aliquot was collected for analysis after thoroughly shaking the bottles (Supporting Information, SI, Section SI-1). Aliquots were acidified with 2% nitric acid and 2% hydroxylamine, and heated at 50 °C for a minimum of 24 h. Metals were analyzed using Inductively Coupled Plasma−Mass Spectrometry (ICP-MS) per method 3125 B.[36]

2.2. 3-D Lead Profiling Protocol. The water supply to the home of Resident Zero was shut off by city officials on April 3, 2015 due to the high lead in water (Figure 2).[21,34,35] As a result, water had remained stagnant for more than 3 weeks (not uncommon in Flint due to high rates of vacancy and water shut-offs) before flow was restored for the sampling effort on April 28, 2015. The night before sampling, the tap was

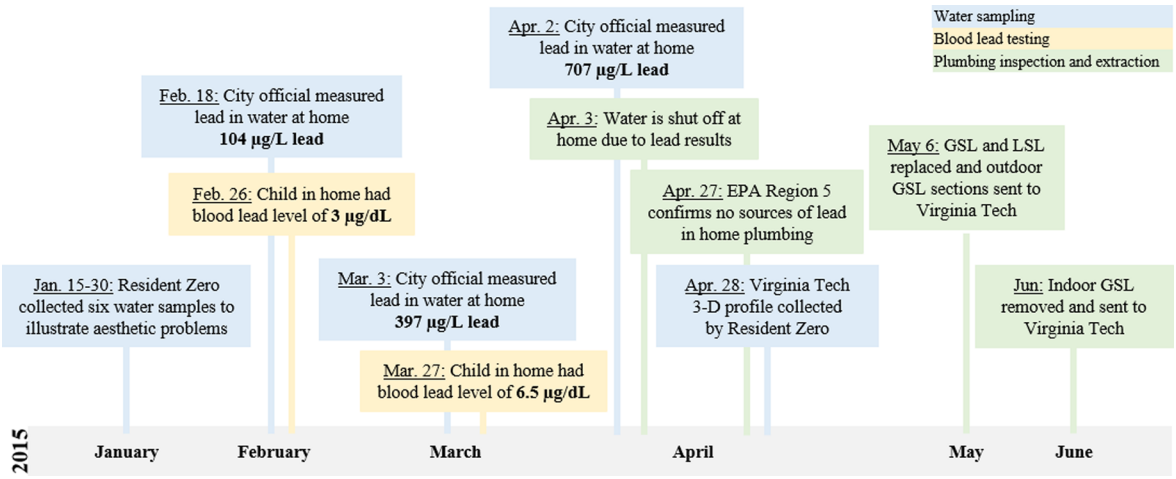

Figure 2. Chronology of water sampling (blue), child BLL testing (yellow), and plumbing system characterization (green) at the home of Flint Resident Zero between January and June 2015. GSL = galvanized iron service line; LSL = lead service line.[21,34,35]

DOI: 10.1021/acs.est.6b04034
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preflushed and precleaned for 25 min to bring fresh water into the system and to ensure that all soluble lead was displaced from the line. The 3-D lead profiling used in this study (Figure SI-1) was a modified version of the protocol developed in Clark et al. (2014),[15] which collected 1 L sequential samples and 250 mL flushed samples from the kitchen cold-water tap at low (1.3 L/min), moderate (4.2 L/min), and high flow rates (7.5 L/min). Specifically, after a 6 h stagnation period, seven 1 L sequential samples were collected at low flow (1.3 L/min) followed by three 250 mL flushed samples collected at 2 min intervals. Immediately afterward and with no stagnation, the flow rate was adjusted to moderate flow (4.2 L/min), and the sample collection was repeated. The water was then turned off and the aerator removed for a final sequence of sampling. At high flow (7.5 L/min), six 1 L sequential samples were collected, and six 250 mL flushed samples were collected at 1 min intervals.

Upon express mail delivery to Virginia Tech, samples were visually inspected to assess water clarity, cloudiness, and color. To quantify the relative fraction of particulate lead in water after shipment to the lab (lead may have adhered to the container walls and/or particulate lead may have dissolved), a 10 mL aliquot was collected from the fifth bottle of each flow rate (bottles 5, 15, and 25) and filtered (0.45 μm). All samples were acidified with 2% nitric acid and 2% hydroxylamine in bottle, and heated at 50 °C for a minimum of 24 h before analysis on the ICP-MS.[36]

2.3. Characterization of Service Line and Leaded Scale. The EPA Region 5 Ground Water and Drinking Water Branch determined that the lead contamination was not associated with the interior household plumbing as it was primarily plastic plumbing with several "lead-free" fittings and fixtures.[21] On May 6, 2015, two 0.6−0.9 m (2−3 ft.) outdoor sections of the 58.5 m (192 ft.) galvanized iron service line (GSL; iron pipe with a protective "galvanized" surface coating composed of zinc, lead, and cadmium) were exhumed by a representative of EPA Region 5 and sent to Virginia Tech for analysis (Figures 2 and 3, #1−2). In June 2015, Resident Zero

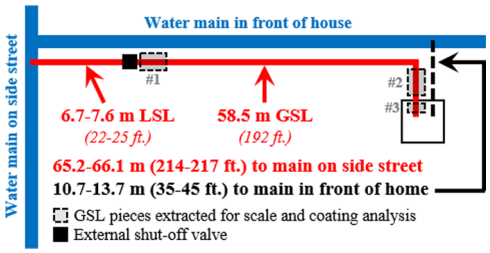

Figure 3. Schematic of galvanized iron service line (GSL) and lead service line (LSL) at home of Resident Zero. Data derived was provided by EPA Region 5.[21,37]

extracted a 1.5 cm (6 in.) section of the indoor GSL for analysis of the original galvanized coating content as revealed by the uncorroded outer surface of the pipe (Figure 3, #3). Scrapings of corrosion rust scales from the outdoor and indoor GSLs and galvanized coating of the indoor GSL were dissolved in 100 mL of water and digested as previously described for analysis via ICP-MS. The pipe surface of the indoor GSL was also analyzed via X-ray fluorescence spectrometry (XRF; Innov-X Alpha Series). In addition, depth profiles of corrosion scales were performed using an environmental scanning electron microscope with an attached X-ray energy dispersive system (ESEM/EDS). Scale formed along the inner surfaces of GSL #1 and #3 were analyzed at various depths (6 depths of GSL #1 and 5 for GSL #3), with each depth examined in triplicate. The EPA later confirmed the presence of a 6.7−7.6 m (22−25 ft.) LSL between the water main and external shut-off valve (i.e., before the GSL; Figure 3);[37] however, this pipe was not recovered during the service line replacement.

2.4. Statistical Analysis. Nonparametric statistics were used in this study due to the non-normal distribution of the lead data (Shapiro-Wilk; $p < 0.05$). Spearman's rank correlation (ρ) was used to evaluate the associations between lead and other water quality parameters (e.g., copper and zinc). The Kruskal−Wallis test was used to compare lead and iron concentrations based on flow rate during the profiling effort.

3. RESULTS

3.1. 3-D Lead and Iron Profiling. On April 28, 2015, 32 water samples were collected from the kitchen cold-water tap as a function of time and flow rate at a home with known lead in water problems. All 32 samples contained lead above the EPA action level of 15 μg/L, with a minimum concentration of 217 μg/L (Figure 4; Table SI-1). The average and median lead concentrations were 2393 and 1747 μg/L, respectively. A sample collected after more than 20 min of flushing (>50 L) contained 13 200 μg/L lead, which was almost three times the EPA's hazardous waste threshold of 5000 μg/L.[38] In total, four of the 32 samples contained lead above 5000 μg/L, occurring sporadically throughout the profile. Furthermore, lead levels increased in the last five samples of this profiling effort, indicating that lead concentrations were not subsiding. Thus, flushing would not protect the occupants from high lead in water, even after following instructions of city officials to flush the line for 25 min before water use.[39]

3.1.1. Lead Release As a Function of Flow Rate. Although low "pencil-thin" flow rates (~1 L/min) are known to underestimate lead in water concentrations during typical flow because the mobilization of particulate lead is greatly reduced,[15,40−42] there was no significant difference in median lead concentrations based on flow rate (Kruskal−Wallis Test, $p = 0.30$; Figure 4) from these samples collected at progressively higher flow rate. Specifically, average and median lead concentrations were 2384 and 2014 μg/L at low flow (1.3 L/min), 1687 and 1119 μg/L at moderate flow (4.3 L/min), and 2988 and 1747 μg/L at high flow (7.5 L/min). This consistent presence of elevated lead in water at all flow rates was attributed to the mobilization of particulate lead (Figure 4, photos A−C). Three filtered aliquots (0.45 μm) collected from sample bottles 5, 15, and 25 indicated that ≥99% of the lead was in the particulate form after receipt at the laboratory.

With continued water use at low flow, there appeared to be a downward trend in lead concentrations, indicating that long flushing times did progressively "clean" the pipes by flushing the lead built up during the overnight stagnation. When the tap was adjusted to moderate flow, two large spikes in lead (3655 and 6048 μg/L) were observed during the sequential sampling, which was attributed to the sporadic mobilization of lead bearing sediment from the pipe at an increased flow rate, but lead levels again decreased somewhat. When the aerator was removed and water was set to high flow, lead levels became highly sporadic. The first sample contained 5702 μg/L, which was 20 times higher than the previous sample of 292 μg/L. Lead concentrations decreased in the next four sequential

DOI: 10.1021/acs.est.6b04034
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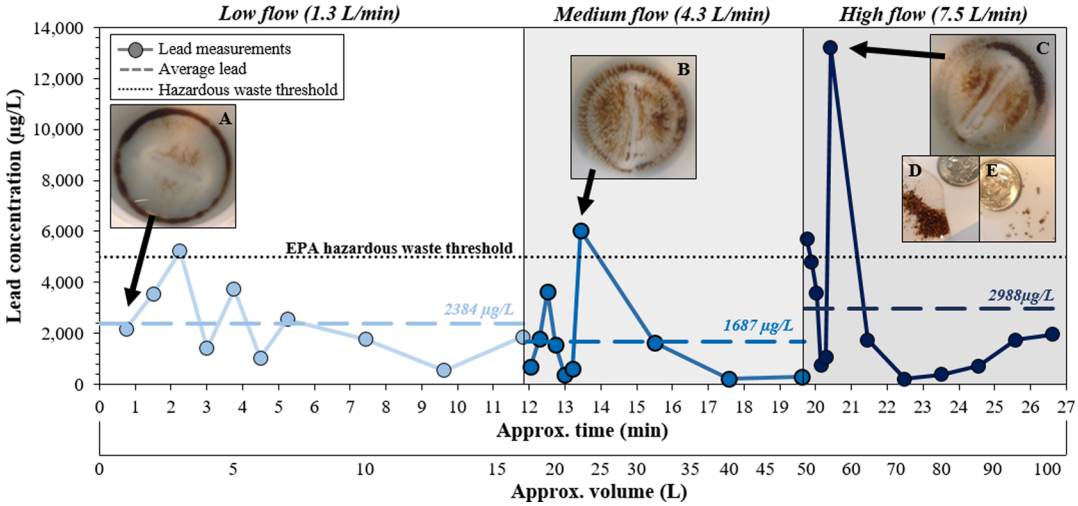

Figure 4. Lead in water concentrations collected at low, moderate, and high flow. The dashed blue lines indicate the average lead measured at each flow rate, and the dotted black line is the EPA hazardous waste threshold of 5000 μg/L. Photos A–C were taken after the water samples settled in their bottles overnight. Photos D and E illustrate the size of the particles shown in photo C.

Table 2. Average Ratios of Metals (± Standard Deviation) in GSL Coating and Water Samples

		indoor GSL surface coating				water samples			
ratio	units	XRF analysis (n = 6)		ICP-MS analysis (n = 6)		ICP-MS January sample (n = 6)		ICM-MS April profile (n = 32)	
Cd:Sn[a]	μg/L:μg/L			1.0	<±0.1	1.1	< ± 0.1	0.9	±0.1
Cd:Zn[a]	μg/L:mg/L			2.6	±0.2	3.0	±0.1	2.6	±0.3
Fe:Pb	mg/L:mg/L	1.4	±0.3	NS[b]	NS[b]	39	±11	1.7	±0.7
Fe:PO_4	mg/L:mg/L			NS[b]	NS[b]	4.1	±0.6	1.3	±0.3
Pb:Cd[a]	μg/L:μg/L			7.0	±0.9	336	±37	744	±283
Pb:Zn	μg/L:mg/L	17.1	±5.4	18.2	±1.4	989	±134	1824	±747
PO_4:Pb	mg/L:mg/L			1.0	<±0.1	9.4	±1.7	1.2	±0.3

[a]Sample sizes varied due to nondetectable Cd and Sn concentrations: January (n = 5) and April (n = 30). [b]NS: no sample. Iron concentrations were not consistent with ASTM standards, indicating scrapings of the underlying iron pipe influenced the analysis.

samples, but the sixth sample contained 13 200 μg/L. Lead concentrations in the last five water samples (i.e., flushing interval) continued to increase, indicating that water from the kitchen tap was still not safe for consumption despite flushing the line for more than 26 min (>100 L).

3.1.2. Iron Release As a Function of Flow Rate. All 32 water samples collected during the profile contained iron concentrations above the EPA secondary maximum contamination level (SMCL) of 0.3 mg/L (Figure SI-2; Table SI-1). Concentrations ranged from 0.7 to 6.5 mg/L, with average and median concentrations of 2.7 and 2.8 mg/L. There was no significant difference in iron concentrations based on flow rate during this effort (Kruskal–Wallis Test, p = 0.50). Specifically, average and median iron concentrations were 2.8 and 3.1 mg/L at low flow, 2.2 and 1.9 mg/L at moderate flow, and 3.1 and 3.1 mg/L at high flow. As iron in water concentrations were strongly correlated (Spearman's, $p < 0.05$) with lead (ρ = 0.91) and phosphate (ρ = 0.94), it appeared that the high lead and iron levels were a result of the destabilization of lead-bearing corrosion rust layers.

3.2. Sources of Lead in Water at Home of Resident Zero. *3.2.1. Destabilization of Leaded Corrosion Scale.* Drinking water supplied by the DWSD contained approximately 1.07 mg/L of orthophosphate as P,[32] which would be expected to form insoluble phosphate scales with soluble metals in water on the inside pipe surfaces over decades of water use (Figure 1a). When Flint switched to the Flint River as a water source, the practice of adding orthophosphate inhibitors was discontinued,[21,27] and phosphate corrosion scales began deteriorating (Figure 1b). This was evident during the profiling effort as all 32 samples contained phosphate (0.4–9.9 mg/L as P; Figure SI-1), even though the distributed water had undetectable phosphate for 11 months by this time.[21] The average and median phosphate concentrations were 2.4 and 2.1 mg/L as P, and concentrations were strongly correlated with lead (ρ = 0.98), demonstrating that the scales previously formed in DWSD water were deteriorating and falling into the water supply at high levels. In addition, two short-term laboratory experiments conducted at Virginia Tech demonstrated that addition of orthophosphate inhibitors to the Flint River water would have markedly reduced iron and lead release rates (Figure SI-3).[43−45] Although the increase in water corrosivity due to higher CSMR promoted corrosion at galvanic connections (e.g., partial LSL and lead–copper soldered joints), the continuation of orthophosphate corrosion control would have reduced the breakdown of the lead-bearing and other corrosion scales. Scrapings of the interior scale from the outdoor and indoor GSLs (Figure 3, #1–3) were dissolved in water for analysis via ICP-MS. The composition varied considerably based on the section of scale analyzed, as the scales contained 2–47% iron (Fe), 3–11% zinc (Zn), 0.11–

DOI: 10.1021/acs.est.6b04034
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0.37% Pb, 0.005−0.02% tin (Sn), 0.005−0.02% cadmium (Cd), and 0.6−4% phosphate as P (PO_4^{3-}).

3.2.2. Lead Content in Corrosion Scales. One 1.5 cm (6 in.) section of indoor GSL was extracted and sent to Virginia Tech (Figure 3, #3). The outer surface of this GSL, which had been relatively uncorroded by the decades of use, contained 94.2 ± 1.2% Zn, 2.2 ± 0.4% Fe, and 1.6 ± 0.5% Pb as identified by XRF, which was consistent with galvanized iron pipe composition.[20] To detect trace metals, scrapings of the coating were digested and analyzed via ICP-MS, and were found to contain 92.0 ± 0.6% Zn, 1.7 ± 0.1% Pb, 0.2 ± 0.02% Cd, and 0.2 ± 0.02% Sn. When evaluating metals in the tap water during the profiling effort, lead was strongly correlated with Cd (ρ = 0.98), Zn (ρ = 0.95), and Sn (ρ = 0.95). This indicated that zinc, lead, cadmium, and tin likely accumulated in the GSL scale and released when the pipe of this home was exposed to the corrosive Flint River water without corrosion inhibitors.

To attempt to evaluate the lead contribution from the GSL versus the pure LSL, cadmium was used as a GSL fingerprint, since it is in the GSL coating and is rarely present in other plumbing.[20] The average ratio of Cd:Zn in the original relatively uncorroded coating of the indoor GSL pipe wall was 2.6 (±0.2; μg/L:mg/L; Table 2), consistent with the average ratio observed in water samples during all of the profiles (2.6 ± 0.3). Thus, the presence of zinc and cadmium released to water was almost certainly due to the disrupted GSL scale, and the zinc could also be used as a fingerprint for GSL lead release for this home with all PVC interior pipe (minimal influence of brass corrosion). The average ratio of Pb:Zn in the original GSL coating as determined by ICP-MS was 18.2 (±1.4; μg/L:mg/L). However, the average ratio observed during the profiling effort was 1824 (±747; μg/L:mg/L), two magnitudes higher than that observed in the original coating. We hypothesize that this indicates that lead had previously leached from the upstream LSL and sorbed to the iron rust layers forming on the GSL when the home was supplied by DWSD, and that this lead enriched scale was being released due to the change in source water (Figure 1). This is problematic given that the lead enriched iron rust layers present on the GSL can serve as a large lead in water source, even after the original LSLs are removed.[14,20,46]

The breakdown of these lead-rich iron rust layers was also evident during the January sampling effort. The Cd:Zn ratio (3.0 ± 0.1) in water samples was consistent with the original GSL coating composition, and the Pb:Zn ratio was higher (989 ± 134) than the coating ratio. However, there was a large difference in the Fe:Pb ratio between the January sampling (39 ± 11) and April profile (1.7 ± 0.7). We speculate that different types of scale containing iron and phosphate were disrupted during periods of water use (Figure 3, #1−3). Specifically, the average iron content in the interior scale was 5.1 ± 4.6% for GSL #1, 17.9 ± 2.3% for GSL #2, and 42.3 ± 4.8% for GSL #3, while the average lead content in the GSL scales remained relatively consistent (0.2−0.3%).

Scale depth profiles were performed to verify that lead-rich iron rust layers formed on the GSL, and scale compositions were nonuniform along the 58.5 m (192 ft.) GSL. A simple visual inspection and ESEM/EDS analysis confirmed that scales formed on GSL #1 (adjacent to the LSL) and GSL #3 (inside home) varied considerably (Figures 3 and SI-4). White scales approximately 3.6 mm thick formed on GSL #1 while brown scale approximately 1.8 mm thick formed on GSL #3. The composition of GSL #1 scales was relatively homogeneous with depth, as there was an average fluctuation of 39−48% in oxygen (O), 41−54% in Fe, and 0.07−0.12% in phosphorus (P). The highest lead percentage was in the layers closest to the pipe surface (average 0.43−0.53%) and decreased in layers closer to the water (average 0.06−0.10%). In contrast, GSL #3 scale was heterogeneous, as the percent of O and Fe varied with depth. Layers closer to the pipe surface contained higher average Fe levels (25−41%) compared to the outermost layers with higher average O (55−57%) and P (2.4%). The percent of lead within the scale was sporadic ranging from 0.0 to 0.8%. Thus, with nonuniform composition of the GSL scales in different pipe segments and the semirandom nature of scale detachment, variations in ratios of metals between sampling efforts as the interruption to corrosion control continued, were not unexpected.

3.3. Water Quality in January 2015 Samples.

3.3.1. High Lead and Red Water Complaints. After the switch to treated Flint River water, there was an increase in "red/rusty water" complaints, which was most likely further exacerbated by additional disruptions to the iron water mains through hydrant flushing.[27,47] While red and rusty water complaints were caused by an increase in iron,[14,46] they were also associated with elevated lead in water levels in this home as there was a strong correlation between lead and iron levels in the January samples (ρ = 1, p < 0.05; Table SI-2). The first water sample collected on January 15 had the least discoloration and had a lead and iron content of 360 μg/L and 9.0 mg/L, respectively (Figure 5). In contrast, the first water sample collected on January 21 was highly discolored and had a lead and iron content of 3585 μg/L and 168 mg/L. Water discoloration was predictive of high lead in water in this home with a lead service line, with the average iron-to-lead ratio of 1 mg/L iron to 28 μg/L lead. Thus, statements by authorities that water with red/rusty characteristics was safe for consumption was inaccurate in this instance.[27] However, it is important to note that while water discoloration was strongly associated with high lead in water in the January samples, the lack of discoloration was not an indicator of safe water lead levels, as illustrated by the lack of discoloration observed in the April profiling samples (i.e., samples with no aesthetic issues but Pb ≥ 217 μg/L).

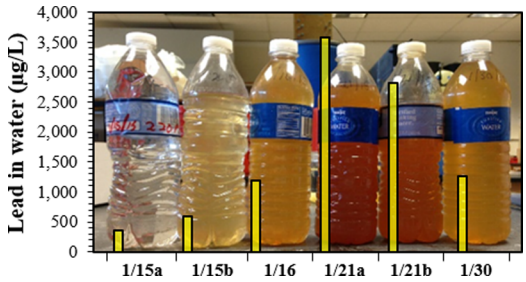

Figure 5. Association between water discoloration and lead concentrations for water samples collected in January 2015. A photo of the original sample bottles is overlaid with a bar chart of lead in water concentrations.

3.3.2. Deficiencies in the LCR Sampling. Lead levels in the January 2015 samples highlighted instructions in the LCR protocol that artificially reduced lead in water during sampling. Specifically, instructions to preflush the night before sample collection and low-flow rates imposed by small bottle openings, are known to minimize particulate lead and produced levels of

DOI: 10.1021/acs.est.6b04034
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104, 397, and 707 μg/L in February, March, and April.[21] These LCR levels were much lower than the average lead level (1635 μg/L) collected by this resident in January during normal water use, which is disconcerting given that the goal of LCR sampling is to detect "worst case" lead. Furthermore, of the 100 LCR samples originally required, officials only collected 71, and all of the high LCR lead results from this home were excluded "conveniently and without adequate investigation".[31] The net result was an "official" 90th percentile lead result below the action level.

4. IMPLICATIONS

While purchasing water from DWSD, Flint's 2013 Consumer Confidence Report documented a 90th percentile lead value of <2 μg/L,[48] indicating reasonable corrosion control. In April 2014, with the disruption of corrosion control, Flint residents started reporting aesthetic water quality issues and the city issued boil water advisories.[31] But the lead in water problem would have likely gone undetected indefinitely without the scientific and investigative work of Resident Zero. The high lead and iron levels observed were consistent with destabilization of lead-rich corrosion rust layers,[1,4,13−15] the nature of which varied considerably with time, and with distance from the LSL. Although this case study might very well be among the worst-cases for lead in Flint, as the service line to this property was unusually long at 65.2−66.1 m (214−217 ft.; Figure 3), the relative increase in lead hints at the likely magnitude of problems that could have occurred in other Flint homes.

Even incidental exposure to drinking water with high lead observed at Ground Zero poses serious health concerns. For chronic, long-term exposure, the EPA estimates a child's BLL will increase by 1 μg Pb/deciliter blood for every 5 μg/L lead in water increase.[49] A single 250 mL drink of water containing even the lowest concentrations observed (217 μg/L) at this home, is estimated to raise the average child's BLL to 0.4 μg/dL.[5,50] Moreover, 250 mLs of water containing 2500 μg/L Pb is predicted capable of raising a child's blood lead from 0 to 5 μg/dL (the Centers for Disease Control and Prevention's BLL of concern),[5] and roughly one-third of samples collected (10 of 32) during the profiling effort exceeded this threshold. At the highest observed lead level of 13 200 μg/L at this home, a child's BLL can be elevated from 0 to >5 μg/dL via consumption of a single swallow of water (50 mLs).[21]

Assuming a uniform lead content of 0.15% by weight, the 58.5 m (192 ft.) GSL would contain an estimated 10.4 g of lead within its corrosion scales. As a person in the U.S. typically uses between 80 and 100 gallons of water per day,[51] the continued breakdown and mobilization of the leaded GSL scales could have contaminated every drop of water used by this family of five to 15 μg/L for 12−15 months if this lead were all released uniformly. The kinetics of lead release are more complex, but this calculation illustrates that there can be significant long-term problems associated with lead sorbed to galvanized iron, as noted by others.[14,20,46] This is particularly problematic for the estimated 50% of homes with full or partial lead piping.[52,53]

On the basis of the absence of corrosion control treatment and related observations of Resident Zero,[21,27] a system-wide sampling effort was initiated by our team in August 2015 in direct collaboration with Flint residents which revealed a city wide problem.[54] Preliminary results indicated that the 90th percentile was 25 μg/L, based on 252 randomly sampled homes throughout the city. After an analysis of blood lead data revealed spiking lead in blood of Flint children city wide in late September 2015,[55] a state of emergency was declared by local, state, and federal health officials which included distribution of filters and bottled water to avert additional health harm.

■ ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/acs.est.6b04034.

Additional water quality measurements and figures collected during the profile and January sampling efforts and information regarding the 3-D lead profiling protocol(PDF)

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Notes

The authors declare no competing financial interest.

■ ACKNOWLEDGMENTS

This research was supported by the National Science Foundation through a Rapid Research Response grant (#1556258) and funding from the Community Foundation of Greater Flint. The authors would like to acknowledge the work of LeeAnne Walters (Resident Zero) and Miguel Del Toral (U.S. EPA) for identifying the lead in water problem. The authors also thank Dr. Jeffrey Parks for his assistance with sample analysis.

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Author manuscript

J Am Water Works Assoc. Author manuscript; available in PMC 2017 March 16.

Published in final edited form as:

J Am Water Works Assoc. 2016 December ; 108(12): 22–34. doi:10.5942/jawwa.2016.108.0195.

Flint Water Crisis: What Happened and Why?

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THE FLINT RIVER IS A VARIABLE WATER SOURCE AND THUS A CHALLENGE TO TREAT; OVERSIGHTS AND MISSTEPS COMBINED WITH INHERENT CHEMICAL CONDITIONS SET THE STAGE FOR THE HISTORIC WATER CRISIS IN FLINT, MICH.

There has been much in the news about the water crisis that began in 2014 in Flint, Mich., and the length of time it took for government officials to react. The elevated levels of lead found in the drinking water of residences in Flint have had a profound effect on the level of trust within the community and the state, the economy of the region, and the health and well-being of the residents of Flint and the surrounding communities. As Eric P. Rothstein so aptly stated, “Flint matters because the water utility industry can do better. The crisis, tragic in so many respects, also presents an opportunity for lasting benefit-benefit from recognizing that we are Flint” (Rothstein 2016). We have investigated the chemistry and engineering behind what happened to Flint’s water, why it was corrosive, and the extent to which the system appears to be recovering. This analysis is based on an extensive review of the monthly operating reports (MORs) and other reported documents from the water treatment facilities, and from personal communications with plant operators and managers.

HISTORICAL PERSPECTIVE

The first water distribution system in Flint was privately owned and incorporated as the Flint Water Works Company in 1883 (Dunbar & May 1995). On July 8, 1897, the City of Flint passed an ordinance requiring lead pipes: “all connections with any water mains shall be made with lead pipe” (Anon. 1897).

The City of Flint purchased the Flint Water Company in 1912. By 1930, Flint River water was being treated using alum coagulation before sand filtration, with the plant rated at 28

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mgd (Hardin 1932). Construction on a new treatment plant for the City of Flint began in 1952 and was completed in 1954. At that point, treatment of the Flint River included prechlorination, coagulation with alum, lime-soda ash softening, recarbonation, filtration, the addition of polyphosphate for corrosion control, and postchlorination. Taste-and-odor-causing compounds were removed using activated carbon, along with the addition of ammonia and sodium chlorite. The plant was rated at a capacity of 59 mgd, with a maximum overload capacity of 86 mgd. The 50th percentile pH, color, and turbidity of the finished (tap) water were 10.3, 2, and 0.1 ppm (silica scale; approximately equivalent to 0.02 Jtu), respectively. The total and noncarbonate hardness were 86 and 49 mg/Las $CaC0_3$ (calcium carbonate), respectively (Wiitala 1963).

In 1967, Flint began purchasing wholesale treated water from the Detroit Water and Sewage Department (DWSD). While the water quality of the Flint River was poor as a result of unregulated discharges by industries and municipalities (Leonardi & Gruhn 2001), the principal reason for the switch was to ensure a sufficient quantity of water for the growing population (Carmody 2016). After 1967, the Flint Water Service Center (FWSC) was maintained as a backup water treatment facility, treating Flint River water two to four times a year for periods of only a few days. The National Pollutant Discharge Elimination System permit allows the treated water to be discharged back into the Flint River. In 2012, the Board of Water Commissioners for the City of Detroit approved a resolution that would allow the DWSD director to enter into contractual arrangement to allow blending of treated Flint River water with that purchased from DWSD as a cost-saving measure (City of Detroit 2012). While DWSD and the City of Flint never entered into a contractual agreement, it is unclear whether blending of these two different waters actually occurred.

With the goal of reducing the costs for treated water (Felton 2016), Flint officials decided in 2013 to join the newly formed Karegnondi Water Authority (KWA), which was constructing its own pipeline to transmit raw water from Lake Huron. In the interim, the City of Flint had the option to continue to purchase treated water from DWSD (whose source was Lake Huron) or treat Flint River water at its own facility. After failing to come to an agreement on a short-term contract with DWSD, Flint decided to use water from the Flint River and treat it at the FWSC.

Many warnings and concerns were voiced regarding the use of the Flint River as a community water source. For example, Brian Larkin, then associate director of the (Michigan) Governor's Office of Urban and Metropolitan Initiatives, foretold the crisis in a Mar. 14, 2014, e-mail message to several others in the governor's office: "The expedited time-frame is less than ideal and could lead to some big potential disasters down the road." Mike Glasgow, laboratory and water quality supervisor at the plant, warned in an Apr. 25, 2014, e-mail to the State of Michigan Department of Environmental Quality (MDEQ), "I do not anticipate giving the OK to begin sending water out anytime soon. If water is distributed from this plant in the next couple weeks, it will be against my direction." Despite concerns, the FWSC switched from purchasing and distributing water from DWSD to treating water at its facility in Flint. In doing this, the source water changed from Lake Huron to the Flint River.

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Within a few weeks of the switch, residents started complaining about the color, taste, and odor of their drinking water. In May 2014, they informed officials that the water was causing rashes, especially in children (MDEQ e-mail records). During this time, red water and discoloration were observed throughout the distribution system (Veolia North America 2015, Felton 2014), and there was an unusually large number of water main breaks (Fonger 2015). General Motors Corporation complained about the corrosiveness of the water on its engine parts and in October 2014 switched to using water from Flint Township instead of from Flint.

Starting in summer 2014, a number of violations occurred. *Escherichia coli (E. coli)* and total coliform violations resulted in the issuance of three boil-water alerts within a 22-day period during summer 2014 (Emery 2016; Fonger 2014a, 2014b). As shown in Table 1, total trihalomethane (TTHM) concentrations at several sampling locations exceeded the 80 μg/L regulatory limit during May and August 2014 (Lockwood, Andrews, & Newman 2015). As a result, the MDEQ requested a preemptive operational evaluation in September 2014 and notified Flint of an initial quarterly violation of the Safe Drinking Water Act (SDWA) Disinfection/Disinfection Byproducts (D/DBP) Rule in December 2014 (Flint Water Advisory Task Force 2016; Table 1).

In February 2015, the City of Flint sampled Flint resident Lee Ann Walters' home and found lead in her water at a concentration of 104 μg/L (e-mail correspondence between US Environmental Protection Agency [USEPA] Region 5 and MDEQ dated Feb. 26, 2015; Flint Water Advisory Task Force 2016). By Aug. 31, 2015, Marc Edwards, a professor at Virginia Polytechnic Institute and State University, had analyzed 120 samples from Flint homes. He found that 20% of the samples had lead levels that exceeded the 15 μg/L action level and that the 90th percentile was 30 μg/L (Roy 2015a). In September, a team led by a local pediatrician, Mona Hanna-Attisha, published data showing that blood lead levels (BLLs) in children increased significantly after the switch to the Flint River as a water source (Hanna-Attisha et al. 2016; Kennedy et al. 2016). In the area of Flint that had the highest lead levels in the watei; the BLLs in children who were tested increased by a factor of about 2.5.

The city was required by the SDWA Lead and Copper Rule to conduct sampling for lead and copper in Tier 1 premise plumbing over six-month periods. Although not all of the homes sampled were Tier 1 sites (City of Flint 2016), the first round of sampling revealed that the 90th percentile lead concentration was greater than that observed during the previous five rounds of testing (Figure 1); by the end of the second six-month sampling period, the 90th percentile lead level was almost three times greater than that observed in the previous 15 years (Figure 1).

After much publicity regarding the lead problem, on Oct. 16, 2015, the source water for the City of Flint was switched back to treated Lake Huron water supplied by DWSD, with approximately 1 mg/L phosphorus to inhibit corrosion. Because the lead levels measured in the water remained high in some houses, on Dec. 9, 2015, the concentration of the phosphate corrosion inhibitor was increased by adding an additional ~2.5 mg/L phosphoric acid (P) at the FWSC.

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Finally, in February 2016, information on the increase in the number of cases of Legionellosis that occurred in Flint in the summers of 2014 and 2015 was released. Ninety-one cases and 12 deaths have been confirmed in the Flint area, up from six to 13 cases a year before the switch to Flint River water (Anderson 2016). The source of the outbreak has not been definitively determined or directly connected to the Flint water system, but as noted by Anderson (2016), the illnesses began after Flint changed its water supply. Given the low residual disinfectant levels (chlorine in this case) and the presence of iron in the water in the distribution system (Veolia North America 2015, Felton 2014), along with high concentrations of assimiliable organic carbon that would have likely formed during the ozonation of the high total organic carbon (TOC) Flint River water, conditions could have been conducive to biological growth and the propagation of *Legionella* in the distribution network.

WATER TREATMENT AT THE FLINT WATER TREATMENT PLANT

During the period from April 2014 to October 2015, the turbidity of the raw Flint River water at the FWSC plant ranged from 1.5 to 45.2 ntu (according to the MORs). The chloride level in the raw water ranged from 3 8 to 82 mg/L, with the monthly average values ranging from 38 to 54 mg/L. The TOC of the Flint River was reported to be 10.3 mg/L on May 22, 2014 (Lockwood, Andrews, & Newman 2014). The FWSC raw water intake is upstream of most development in Flint, but there is still some concern about industrial contaminants and sewage (Fonger 2014c).

Although numerous changes were made to the treatment process over the course of the 1.5 years of treatment, as of November 2014, when the draft Operational Evaluation Report (OER) was published, the treatment train was as shown in Figure 2 (Lockwood, Andrews, & Newman 2014). Water was drawn from the Flint River through raw water screens, then pumped into the ozonation basin. Sodium bisulfate was added in the last cell of the ozone contactor to destroy any residual ozone left in the water. The water then flowed into a rapid mix tank, where ferric chloride was added. From there, the water entered a three-stage flocculation unit followed by plate settlers. From the settling unit, water flowed into an upflow clarifier, where lime and anionic and cationic polymers were added. Fluoride was added at the outlet of the clarifier. From there, water moved into the recarbonation unit, where carbon dioxide was added to lower the pH. Chlorine was added just before dual media (sand/anthracite) filtration and again before flowing into a 3-mil-gal clearwell (Figure 2).

Before the switch to Flint River water, Laboratory and Water Quality Supervisor Mike Glasgow sent MD EQ staff engineers an e-mail message on Apr. 17, 2014, stating, “I do not anticipate giving the OK to begin sending out water anytime soon.” While the message sounded the alarm that staffing and monitoring plans were inadequate, it has not been reported how poorly equipped the plant was. It is clear from the MOR that the plant was woefully unprepared for full-time operation on Apr. 25, 2014. The May 2014 MOR reveals that the plant had only four to five days of polymer available to “use as a trial on two different occasions.” Supervisory control and data acquisition (SCADA) upgrades were incomplete and out for bid. Filter headloss meters were not operational on the SCADA system. Also, chlorine residual monitoring equipment at the point of entry into the

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distribution system had not been installed, so chlorine levels would have had to have been measured by taking grab samples from the clearwell as well as from a tap in the laboratory. It appears that, on the basis of the MORs, chlorination after filtration was not used until May 17, 2014. Fluoridation was not implemented until July 2, 2014. The water utility did not have a corrosion-control plan, and it had not installed corrosion control equipment when the water was switched back to DWSD on Oct. 16, 2015. On the basis of the comments in the MORs, the filter headloss meters were never made operational.

Figures 3 and 4 illustrate the variability in the chemical dosages that were used during the treatment process. Bench-scale jar testing for trihalomethane (THM) removal was not completed until sometime between January and August 2015 (City of Flint 2015). Without any treatability studies on which to determine chemical dosages until late August 2015 (City of Flint 2015), it appears that plant personnel were left to attempt to address the plethora of complex water quality issues and complaints by trial and error. Significant changes were made to chemical dosages, and the reasons for these changes were often not apparent. For example, the dosage of the anionic polymer (P-142PWG) added to the lime softening process to enhance settling was initially 0.05 mg/L; the anionic polymer dosage was later increased significantly, with concentrations approaching or exceeding the maximum dosage of 1. 0 mg/L as recommended byNSF International (2016). The OER issued in August 2015 (Lockwood, Andrews, & Newman 2015) states that “feeding coagulation/flocculation polymer aids” do not have “a meaningful benefit.” However, while there was a slight decrease in polymer use in March 2015, both anionic and cationic polymers were used continuously until the plant was shut down in October 2015. The reasons for the increase in the lime dosage in November 2014 and then the decrease in February and March 2015 are unknown.

It is unclear what ozone dosage was used over the majority of the treatment period because it was not recorded in the MORs until March 2015. The OER (Lockwood, Andrews, & Newman 2015) states that the ozone system was not feeding optimally until “corrective modifications” were made in January 2015. The corrective modifications appear to have been “repairs to gauges and programming” to produce “proper ozone under manual operation.” Repairs were planned for the first quarter of 2015 to “allow automatic operation,” but it is unclear if those were made.

Bromate is a disinfection by-product formed by the reaction of bromide ion with ozone. Monthly bromate monitoring for the first year of operation was required by the D/DBP Rule and were ordered by MDEQ staff on Sept. 11, 2014. The first bromate sample was to be taken by the end of that month. The 2014 consumer confidence report (City of Flint 2014) states that the bromate levels varied from 0 to 23 μg/L, and that no violation occurred. However, as the reporting limit for bromate was 5 μg/L (Stark 2016), the bromate levels actually varied between <5 and 23 μg/L.

The maximum contaminant level (MCL) for bromate is 10 μg/L, as a running annual average (RAA), determined at the point of entry. No data for bromate concentrations are provided in the 2015 consumer confidence report (City of Flint 2016); however, e-mail correspondence on Apr. 6, 2015, between MDEQ staff members indicate that the RAA was “hovering just

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above the MCL of 10 ppb." E-mail correspondence between FWSC staff and MD EQ staff indicates that bromate results were not reported for five of the 13 months after September 2014, even though ozone was used continuously at the plant.

Disinfection was accomplished using gaseous chlorine which, as shown in Figure 2, was to be added both before and after filtration. The total chlorine dosage varied from ~5 mg/L in the winter months to > 7 mg/L in the summer months (Figure 5). Not surprisingly, the chlorine demand, calculated by subtracting the chlorine residual leaving the treatment plant from the applied chlorine dosage, increased during the summer and decreased during the winter. The location of chlorine application varied significantly during the treatment period, with no post-filtration chlorination until May 17, 2015, and then no prefilter chlorination after Aug. 3, 2015. No justification for these changes was documented in the MORs. The softening bypass stream had been reduced to no greater than 20% in November 2014 in an attempt to reduce chlorine demand. The minutes of the Nov. 7, 2014, TTHM Response Planning Meeting (MDEQ e-mail correspondence) state that the bypass was discontinued "and it appears that the chlorine demand has dropped by 0.5–1.0 mg/L." However, as shown in Figure 5, this drop appears to be a part of a downward trend that occurred before this change. In summer 2015, the chlorine demand was somewhat lower than in summer 2014, but it is not clear whether this is due to eliminating the softening bypass stream or to other causes.

Difficulties were encountered in maintaining chlorine residuals throughout the distribution system throughout the 1.5 years of treatment and continues to be problematic, even after the change back to DWSD water. As shown in Figure 6, chlorine residuals in the treated Flint River water were low during the first few months of operation. In response to this and the detection of *E. coli*, the post-filtration chlorine dosages were increased from 0.0 to 2.9 mg/L in June 2014 and then to ~3.8 mg/L in July–October 2014, resulting in a decrease in the number of distribution system samples with no detectable chlorine residual. However, as shown in Table 1, increasing the chlorine dose resulted in increased concentrations of TTHMs. Although the FWSC reported increases in chlorine residuals after Oct. 2014, Marc Edwards reported that in August 2015, 41 % of the samples his group collected had no detectable chlorine (Roy 2015b). This team's sampling and analysis in late October 2015 revealed that 16 of the 30 samples collected had chlorine residuals less than 0.2 mg/L and 10 had chlorine levels less than 0.1 mg/L. The US Environmental Protection Agency (USEPA) Safe Drinking Water Task Force remains concerned about chlorine residual levels in Flint's water (Emery 2016).

The 24-month source water sampling for *Cryptosporidium, E. coli*, and turbidity to determine bin placement required by the SDWA Long-Term 2 Enhanced Surface Water Treatment Rule was not done before the switch to Flint River water, apparently because MDEQ staff believed the Flint River was only a temporary source (MDEQ e-mail conversations), despite the fact that construction on the 80-mi KWA pipeline had not even begun in April 2014.

Attempts to address the TTHM exceedances included first eliminating the softening bypass stream in an attempt to increase TOC removal (Lockwood, Andrews, & Newman 2014).

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However, TTHM exceedances continued, so the anthracite media in the filters was replaced with granular activated carbon, and the ozonation system was repaired in summer 2015 (MDEQ Construction Permit W151055). TTHM levels were finally reduced, and in August 2015, only one of the eight samples taken exceeded the 80 μg/L TTHM limit (Table 1).

QUALITY OF TREATED FLINT RIVER WATER

In attempting to understand what happened in Flint, it is necessary to look not only at specific contaminants but also the general quality of the treated water. As shown in Figure 7, the pH and alkalinity of the finished water varied significantly over the 1.5 years of treatment, and for much of the time, both were quite low, especially in summer 2015. The decreases in alkalinity from June to July 2014 and over the course of the period from March to May 2015, both correspond to increases in the lime dosage (Figure 3). The reason for the change in alkalinity and pH after June 2015 is unknown, as the lime and ferric chloride dosages were fairly constant during this period. The carbon dioxide dosage may have changed during recarbonation, but the carbon dioxide dosages were not provided in the MORs.

Treatment for softening and turbidity removal, along with disinfection, reduced the alkalinity by as much as 204 mg/L as $CaC0_3$ and the pH by up to one log unit. The Langelier saturation index (LSI) is a measure of calcium carbonate solubility described as

$$LSI = pH + log\left(\frac{K_a \cdot \gamma_{Ca}2+ \cdot \left[Ca^{2+}\right] \cdot \gamma HCO_{3-} \cdot \left[HCO_{3-}\right]}{\gamma_{\mathrm{H}+} \cdot \left[K_{sp}\right]}\right)$$

where K_a is the acid dissociation constant for bicarbonate, γ is the activity coefficient, [] denotes the molar concentration, and K_{sp} is the solubility product of $CaC0_3$. An LSI value greater than zero indicates that the solution is supersaturated and the precipitation of calcium carbonate is favored and that corrosion is less likely. An LSI value less than zero indicates that the solution is undersaturated and calcium carbonate dissolution is favored, and that the water could be corrosive if no other measures were taken to control corrosion. As a result of reductions in pH, alkalinity, and hardness during treatment, the finished water was undersaturated with respect to calcium carbonate (Figure 8). As the temperature of the water is likely to change in the distribution system (warms during winter, cools during summer), the LSI is also likely to change, suggesting that the water became more under-saturated during summer and less undersaturated during winter. The LSI would have approached −1.5 during August 2015, when the water temperature was predicted to be 15°C in the distribution system.

As shown in Table 2, the chloride content of the treated water ranged from 62 to 95 mg/L (median of 83 mg/L). The chloride level in the treated water was significantly higher than in the river water, predominantly due to the addition of ferric chloride as a coagulant. Calculations using dosing data show that the chloride levels in the treated water increased by 28–100 % as a result of the addition of ferric chloride.

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The turbidity of the raw Flint River water varied seasonally (Figure 9). The turbidity of the finished water did not vary greatly (0.08–0.16 ntu), demonstrating that the filters were operating successfully. However, it can be observed that the turbidity of the water applied to the filters varied greatly, indicating the challenges plant opera tors had in achieving consistent performance in the upflow clarifiers. The changes in lime and polymer dosages, shown in Figures 3 and 4, likely reflect attempts to optimize the removal of turbidity.

CORROSIVE INDEXES

Although a number of indexes have been developed to provide an indication of the likelihood that corrosion or deposition will occur, none are able to predict the rate at which corrosion might occur. Nevertheless, they can be used to assess the potential effects of water quality changes on the likelihood of corrosion.

The Larson-Skold index was developed to evaluate the potential for the corrosion of cast-iron pipes transporting water from the Great Lakes (Roberge 2006). It can be used to determine the effect of chloride, sulfate, and bicarbonate/carbonate ions on the corrosivity of the treated water toward iron pipes in the distribution system. The Larson-Skold index is calculated as

$$LSI = \frac{(Cl-) + \left(SO_4^{2-}\right)}{(HCO_{3^-}) + \left(CO_3^{2-}\right)}$$

where the concentrations are given in units of equivalents per liter. A Larson-Skold index of (1) less than 0.8 suggests that chloride and sulfate levels are unlikely to cause corrosion, (2) between 0.8 and 1.2 suggests higher than desired corrosion rates may occur, and (3) greater than 1.2 is indicative of high corrosion rates (Roberge 2006).

Unfortunately, as the sulfate concentrations were determined on only six occasions, the Larson-Skold index can be calculated only for those six days (Table 2). Of those six days, the Larson-Skold index suggests that high (sometimes very high) rates of iron corrosion should have been expected. While the number of dates are limited, the sulfate concentration was fairly constant over the 1.5 years; therefore, the values of the Larson-Skold index shown in Table 2 are likely to be indicative of the treated water during the time when the Flint River supplied the FWSC plant.

The chloride-to-sulfate mass ratio (CSMR) has been shown to be an effective tool to identify where corrosion is likely (Hill & Cantor 2011). An extensive survey of water utilities showed that 100% of utilities with a CSMR <0.58 met USEPA action limit for lead (15 μg/L) (Edwards 1999). On the contrary, only 3 6 % of utilities with a CSMR >0.58 met the USEPA action limit (15 μg/L). If the alkalinity is less than 50 mg/L as $CaC0_3$, then Nguyen et al. (2010) suggested that the goal should be to achieve a CSMR in the finished water of less than 0.2. Table 2 shows that the CSMR for the treatment period was very high in all six samples. The high values of the CSMR and Larson-Skold indexes of water entering the Flint distribution system should have raised serious concerns about the possibility of corrosion,

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especially given prior experience by water utilities. For example, in Columbus, Ohio, the 90th percentile lead levels in the water increased by almost 360% after a change in coagulant from alum to ferric chloride, which resulted in an increase in the CSMR by up to 170% (Hill & Cantor 2011).

SO WHAT WENT WRONG IN FLINT?

The previous discussion demonstrates the complexity of treating a variable water source. Flint River water was considered to be a challenge to treat, with "high bacteria and high carbon concentrations" that "fluxuate [sic] depending on rain events" (Mar. 20, 2012, meeting minutes, MDEQ meeting on KWA water issues). The only pilot testing that appears to have been completed before the switch was in 2002—a treatability study by Alvord, Burdick, and Howson LCC (AB&H)—and is mentioned in the OER (Lockwood, Andrews, & Newman 2015). The author of the study describes the water source as "particularly difficult to treat with seasonal variation between high organic load and high magnesium hardness" (Lawrence 2012). The treatment train recommended in the AB&H report differs significantly from that used at the Flint water treatment plant, which meant that in 2014 the plant operators lacked important information about the treatability of the water that was necessary for proper plant operation.

AWWA (Muylwyk et al. 2014) recommends that "if a municipality is considering changing how its source water is treated, the potential effects on the corrosivity of the treated water and the need for corrosion control should be evaluated." However, sufficient pilot testing and corrosion studies were not commissioned and completed before the April 2014 switch of source waters. Furthermore, since the Flint plant had not been fully operational in almost 50 years, was understaffed, and some of the staff were undertrained, it is not surprising that it was difficult to achieve effective treatment.

Muylwyk et al. (2014) warn that any of the following treatment changes could affect corrosion or corrosion control in the distribution system:

- Process changes that result in pH or alkalinity changes
- Process changes that affect the CSMR
- Change in coagulant (the Lake Huron plant uses alum)
- Introduction of a new acid to the process (the Lake Huron plant does not use recarbonation; the Flint plant did)
- Introduction of a new base (the Lake Huron plant does not use lime; the Flint plant did)

These changes were made when Flint switched to treating the Flint River water; however, as mentioned previously, corrosion control was not used at the plant, and there was no plan for corrosion control.

As shown in Figure 7, the monthly average pH and alkalinity of the treated water were highly variable. Not shown in the figure are the changes on a daily basis. The daily pH measurements varied from 7.00 to 8.46 over the first three months of treatment. Daily

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fluctuations often varied between ±0.2 to 0.3 pH units, and as high as 1.1 log units in late April 2014. By contrast, the pH of the DWSD water varied no more than 0.34 log units over the course of a month. Changes in pH more than 0.2 units per week are not recommended (Hill & Cantor 2011), as such rapid changes in water chemistry (as experienced in the Flint system) may adversely affect system equilibrium and the passivation layer and scales on the insides of the pipes.

The red color of the water observed by Flint residents is evidence of the corrosion of iron distribution pipes. While FWSC flushed the mains by opening fire hydrants, it never seemed to address the root cause of the colored water, namely the corrosion of the iron pipes. Changes in pH and alkalinity can result in the softening of iron tubercles and therefore result in increased iron corrosion (Hill & Cantor 2011). As discussed previously, in all six samples, the Larson–Skold index was close to or greater than 1.2, indicating potentially high iron corrosion rates should have been expected. On the basis of this and the fact that no corrosion inhibitor was used, it is not surprising that significant iron corrosion was observed. In addition, bacteria are known to contribute to the corrosion of iron pipes, so it is possible that the corrosion problem was exacerbated by bacterial regrowth as a result of low chlorine residual and the likely presence of low molecular weight/easily metabolized compounds formed from the reaction of ozone with naturally occurring organic matter.

Commonly used indexes could have predicted that the treated Flint River water would likely corrode lead pipes. For example, the decision tool shown in Figure 10 uses the CSMR to predict the corrosivity of water toward lead piping. As shown in Figure 7, before July 2015, when the alkalinity of the water was greater than 50 mg/L as $CaC0_3$, the CSMR values of the treated Flint River water exceeded the 0.5 cutoff, so the corrosivity of water would have been a significant concern. After this time, the alkalinity of the water was less than 5 0 mg/L and the CSMR greatly exceeded 0.2, indicating that lead corrosion was an even more serious concern than earlier. The addition of phosphate as an inhibitor to prevent lead corrosion is commonly used in the industry (Hill & Cantor 2011), and while the possible use of phosphate as a corrosion inhibitor was suggested (WadeTrim 2009), the reason corrosion control was not implemented is still unknown. No preliminary corrosion estimates using simple indexes appear in any of the engineering reports, and they do not appear to have been considered during the design process. Journalistic reports of the Flint disaster have often stated that the failure to add phosphate was the primary cause of the lead corrosion problem. However, it should be recognized that the CSMR of the treated Flint River water was so high that, even with the addition of phosphate, the water may have been so corrosive that lead levels in the system might have still exceeded the action level. The failure to recognize the corrosivity of the water and to add a corrosion inhibitor had devastating effects.

In the wake of the lead exposure, the MDEQ finally conducted extensive sampling and analysis of the Flint water. As of June 28, 2016, a total of 23,119 samples have been collected and analyzed for lead since September 2015. The highest lead levels measured exceeded 23, 100 μg/L. On the basis of the Sentinel samples and this more extensive data set collected by the MD EQ, it appears that a significant number of premises still have high lead levels in their water (Figure 11). It has been suggested that in many cases, the high lead levels now seen in homes are due to the presence of particulate lead (USEPA 2016). This

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may be the case, although at this time there appears to be limited publicly available evidence to support this supposition.

There are plans to replace all lead pipes in the Flint system. As of July 2016, lead pipes have been replaced in about 30 premises (Thomas 2016). In the case of Madison, Wis., the utility and homeowners worked together for several years to fully replace the lead service lines in every home in their service area (Corley 2016). High lead levels were found in a number of samples four years after all of the lead pipes were replaced in Madison, Wis. (Cantor 2006), suggesting that even after all the lead pipes are replaced, it may take years for the lead levels in Flint to reach a point at which the concentrations of all samples are below the action level. Clearly there is much to be done before the water crisis in Flint is over.

Acknowledgments

Research reported in this publication was supported by National Institute of Environmental Health Sciences of the National Institutes of Health (NIH) under award number 1R21 ES027199-01. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

Many of the e-mails cited in this article were obtained online from the Michigan Department of Environmental Quality, where they were posted as part of the investigations related to the crisis in Flint, Mich. Additional e-mails were obtained from Governor Rick Snyder's page on the Michigan.gov website.

Biography

Susan J. Masten has 35 years' experience in water treatment and 27 years at Michigan State University. She holds a patent on a hybrid ceramic membrane filtration system and has conducted extensive research on the use of this technology for the control of disinfection by-products, nanoparticles, bromate, and pharmaceuticals in drinking water. Masten earned a BS degree in biochemistry from Fairleigh Dickinson University, Teaneck, N.J.; an MSE degree in environmental engineering from West Virginia University in Morgantown, W.V.; and a PhD degree in environmental engineering from Harvard University, Cambridge, Mass.

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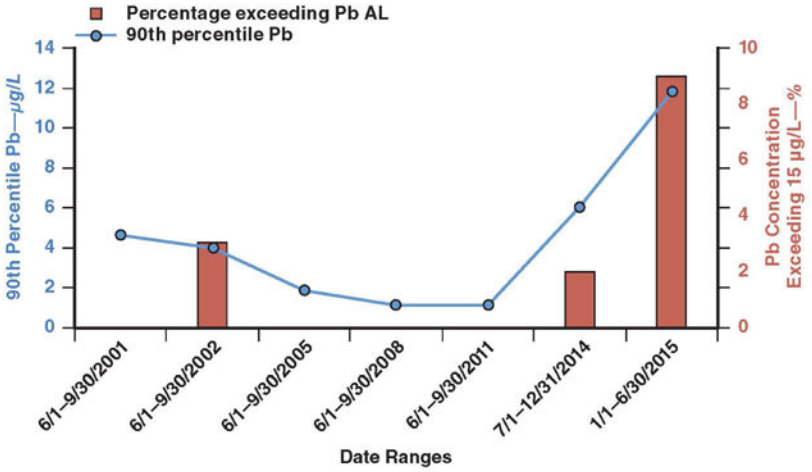

Sampling and analyses were required for compliance with the Lead and Copper Rule.

AL—action level, Pb—lead

FIGURE 1.

Historical data for lead concentrations in the Flint distribution system

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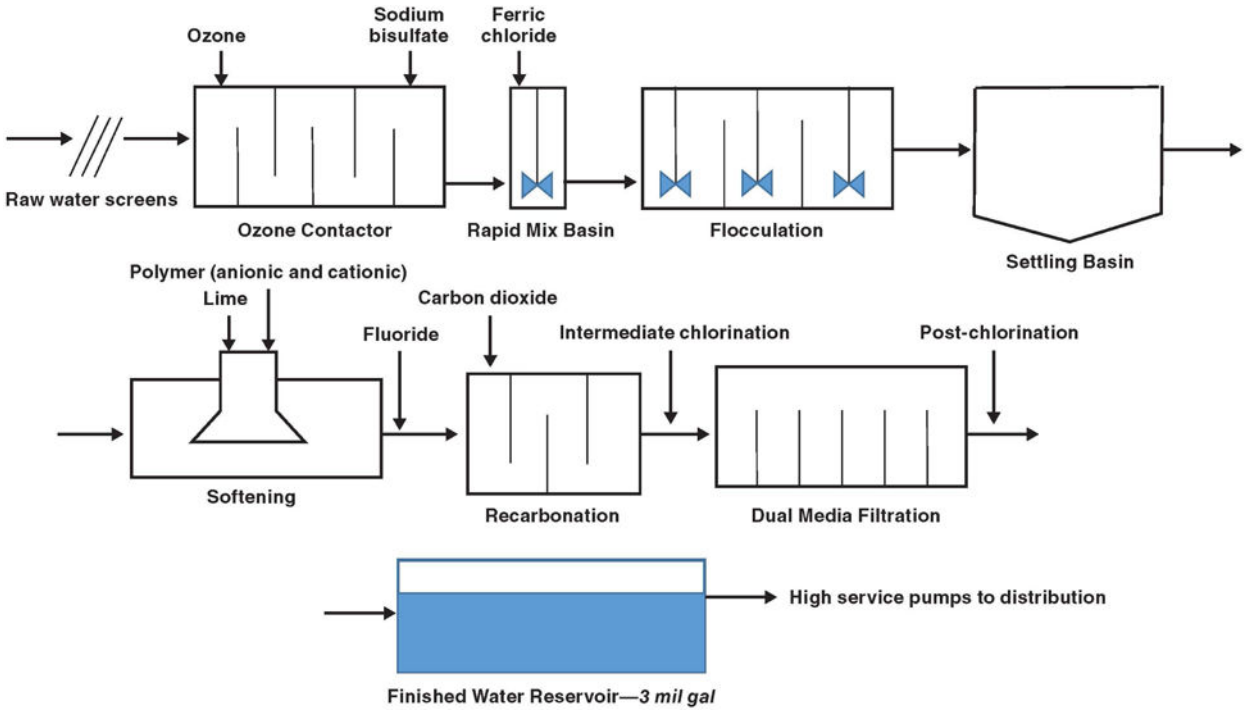

FIGURE 2.
Schematic of the Flint Water Treatment Plant

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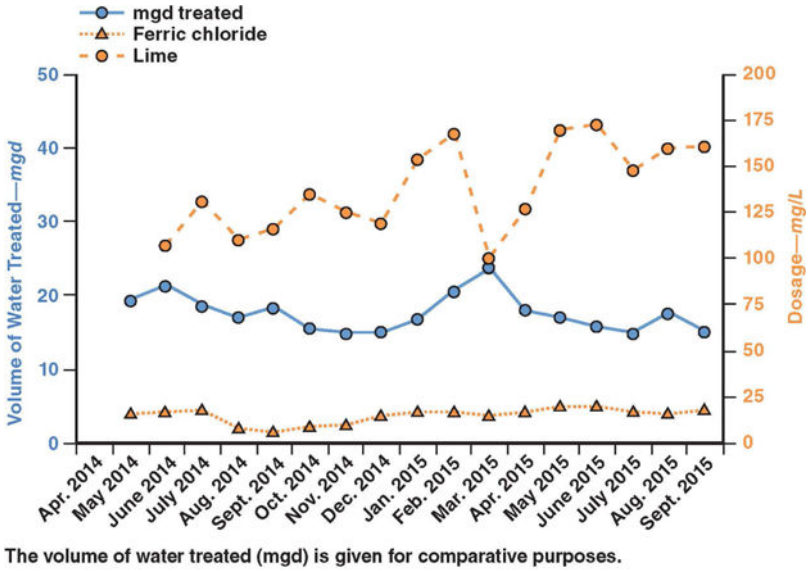

FIGURE 3.

Variability in the monthly average ferric chloride (as Fe^{3}+) and lime dosages used at the Flint water treatment plant for 1.5 years

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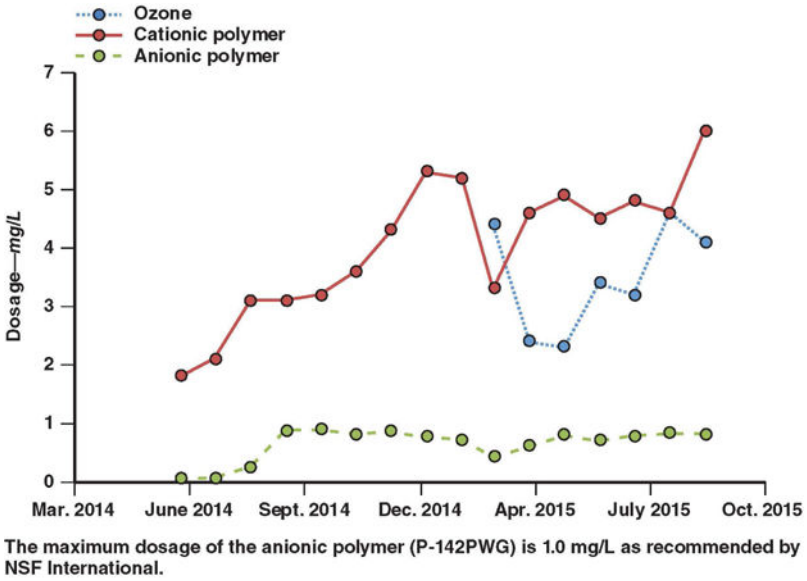

FIGURE 4.

Variability in the monthly average ozone and polymer dosages used at the Flint water treatment plant for 1.5 years

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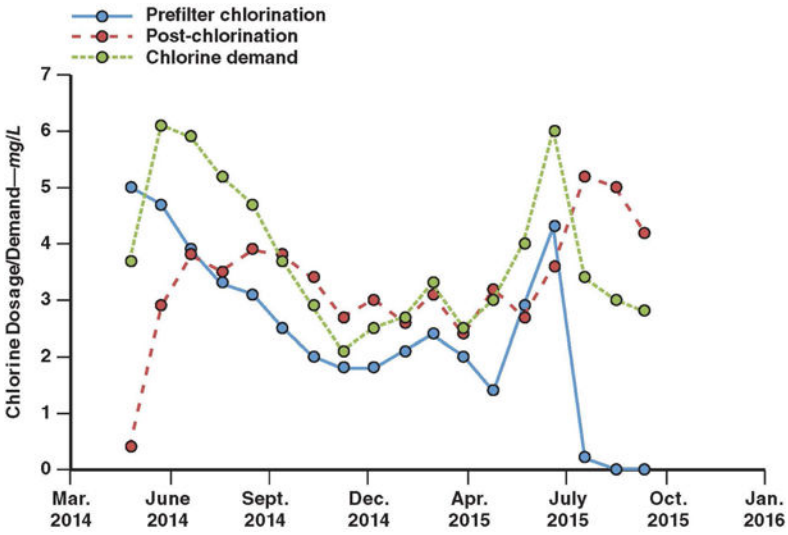

FIGURE 5.

Applied chlorine dosages and chlorine demand of treated Flint River water

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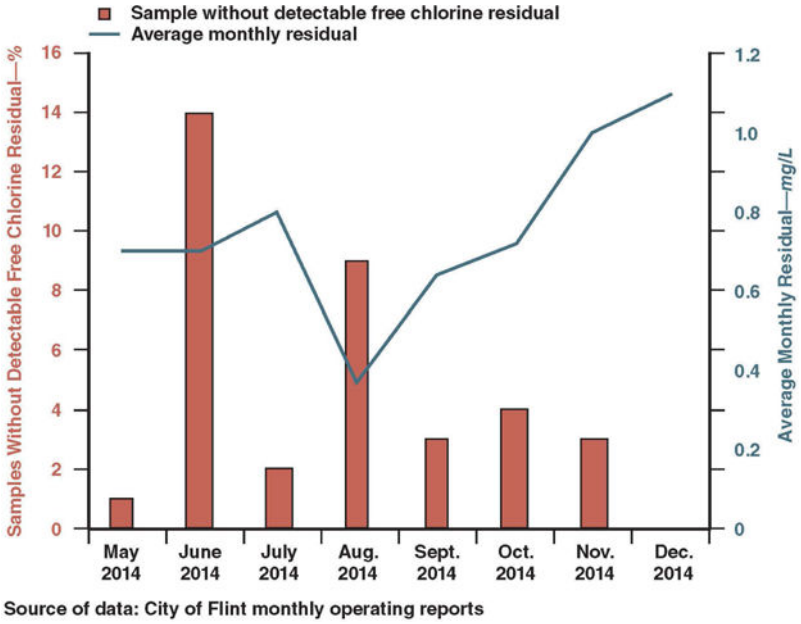

FIGURE 6.
Chlorine residuals at monitoring sites in the Flint distribution system

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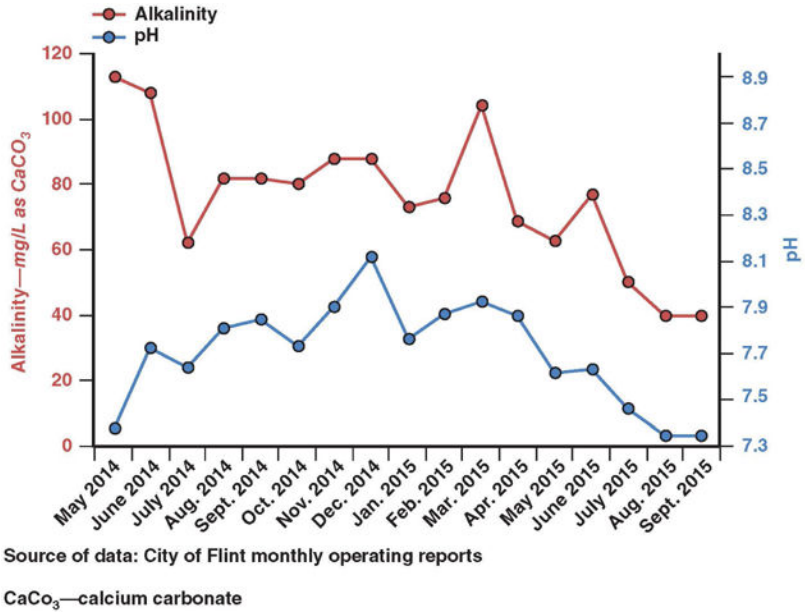

FIGURE 7.
Monthly average pH and alkalinity in the treated Flint River water

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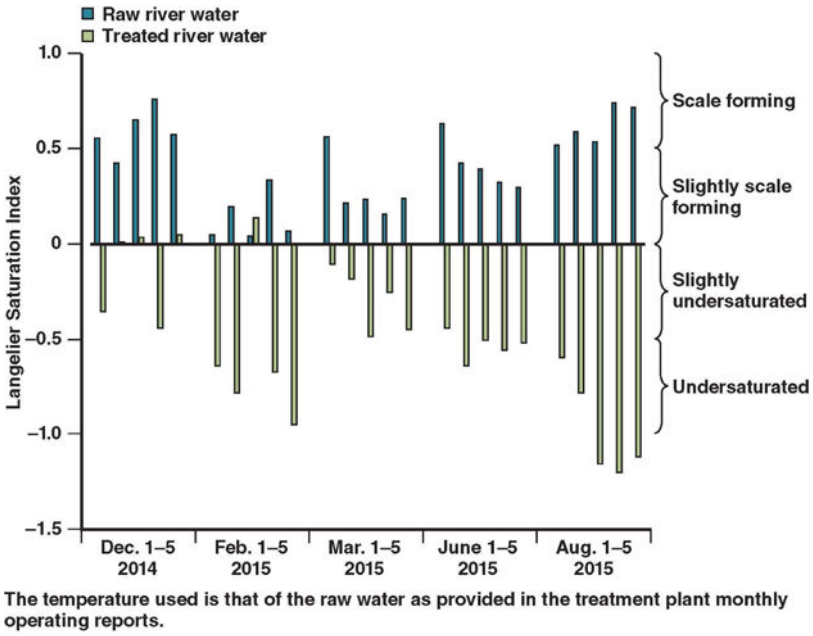

FIGURE 8.

Langelier saturation index of the treated Flint River water at various times during the treatment period

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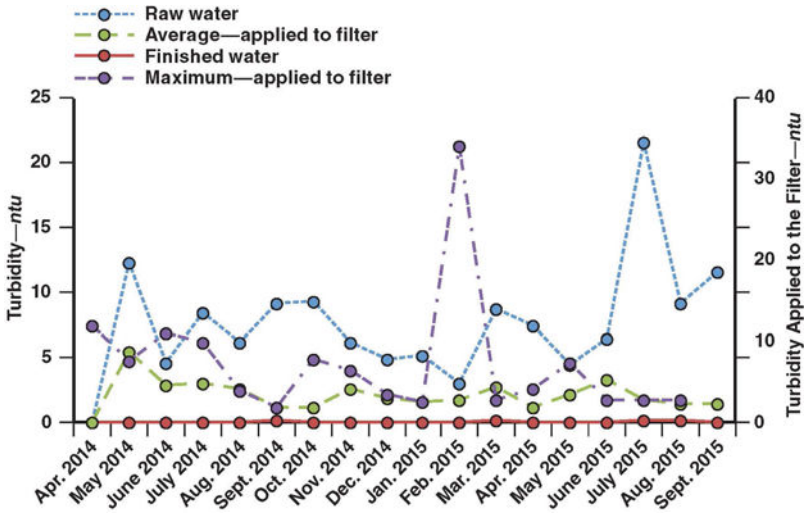

FIGURE 9.
Variability in turbidity within the Flint water treatment plant

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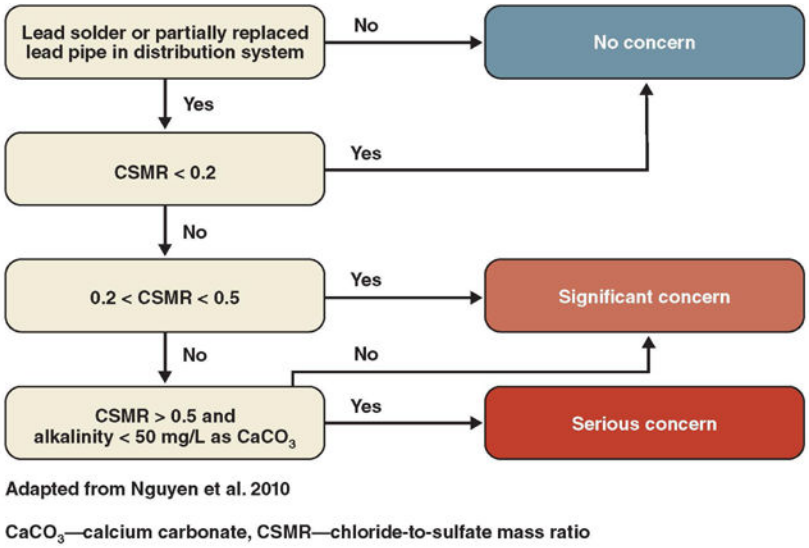

FIGURE 10.
Decision tool to assess corrosion potential based on CSMR

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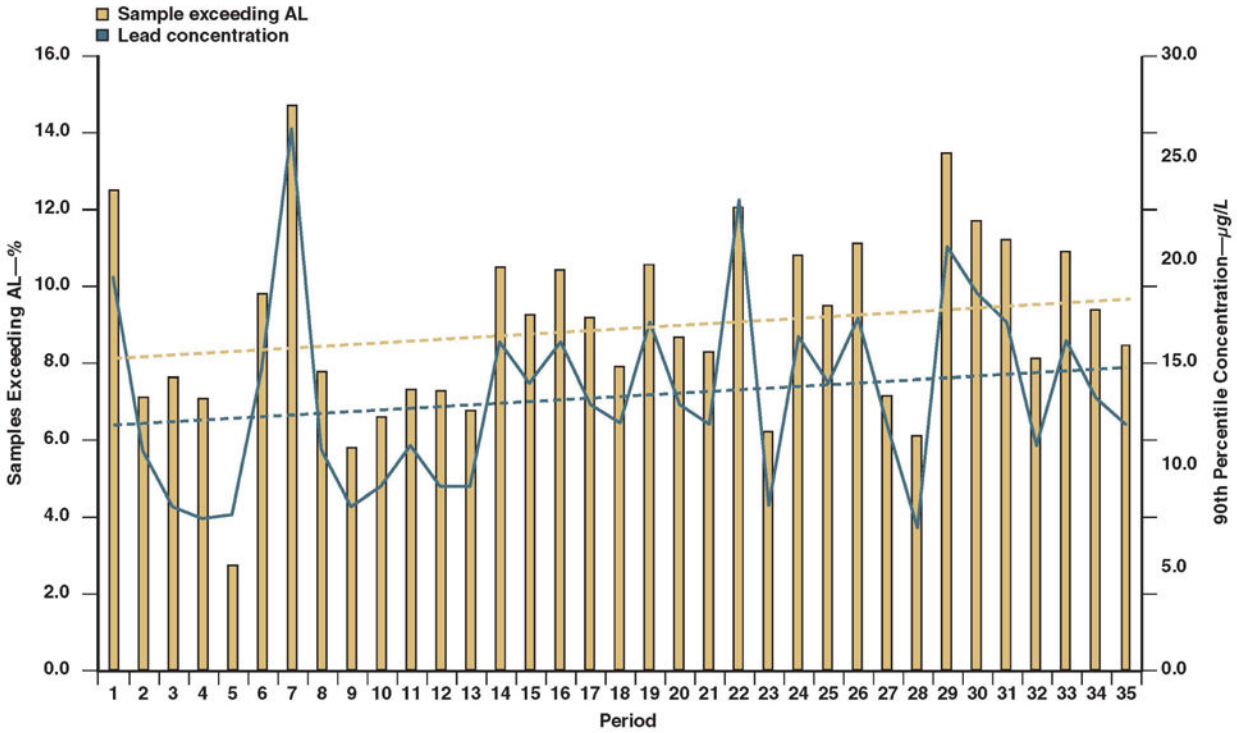

AL—action level

[a]Determined from the Michigan Department of Environmental Quality sampling efforts from Sept. 1, 2015, through July 23, 2016

Period	Date
	2015
1	September
2	Oct. 1–15
3	Oct. 16–31
4	November
5	Dec. 1–10
6	Dec. 11–31
	2016
7	Jan. 3–9
8	Jan. 10–16

Period	Date
9	Jan. 17–23
10	Jan. 24–30
11	Jan. 31–Feb. 6
12	Feb. 7–13
13	Feb. 14–20
14	Feb. 21–27
15	Feb 28–Mar. 5
16	Mar. 6–12
17	Mar. 13–19
18	Mar. 20–26

Period	Date
19	Mar. 27–Apr. 2
20	Apr. 3–9
21	Apr. 10–16
22	Apr. 17–23
23	Apr. 24–30
24	May 1–7
25	May 8–14
26	May 15–21
27	May 22–28
28	May 29–June 4

Period	Date
29	June 5–11
30	June 12–18
31	June 19–25
32	June 26–July 2
33	July 3–9
34	July 10–16
35	July 17–23

FIGURE 11.

Percentage of samples exceeding the lead AL of 15 μg/L and the 90th percentile lead concentration[a]

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TABLE 1

Total trihalomethane (TTHM) concentrations in the Flint distribution system

Location	TTHM concentration *μg/L*			
	May 21, 2014	Aug. 21, 2014	Nov. 21, 2014	Aug. 18, 2015
1	162.4	145.3	58.6	67.9
2	75.1	112	36.2	53.6
3	111.6	127.2	33.3	60.2
4	79.2	181.3	33.9	72.0
5	106.4	196.2	93.6	93.5
6	82.2	112.4	50.1	65.9
7	88.2	144.4	53.6	69.4
8	96.5	118.3	41.1	54.9

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TABLE 2

Parameter concentrations used to characterize the likelihood of corrosion and associated CSMR and Larson-Skold indexes in the treated Flint River water

Sample Date	Concentration *mg/L*		Concentration *mg/Las CaCO$_3$*	CSMR	Larson-Skold Index
	Cl^-	SO_4^{2-}	Alkalinity		
May 22, 2014	85	25	118	3.8	1.24
Aug. 6, 2014	65	23	60	2.8	2.31
Oct. 28, 2014	62	22	76	2.8	1.45
Feb. 16, 2015	95	25	47	3.8	3.40
May 12, 2015	90	31	56	2.9	2.84
Aug. 11, 2015	81	21	36	3.8	3.78

$CaCO_3$—calcium carbonate, Cl^-—chloride, CSMR—chloride-to-sulfate mass ratio, SO_4^{2-}—sulfate

STATE OF CALIFORNIA
AUTHENTICATED
ELECTRONIC LEGAL MATERIAL

Assembly Bill No. 746

CHAPTER 746

An act to add and repeal Section 116277 of the Health and Safety Code, relating to public health.

[Approved by Governor October 13, 2017. Filed with Secretary of State October 13, 2017.]

LEGISLATIVE COUNSEL'S DIGEST

AB 746, Gonzalez Fletcher. Public health: potable water systems: lead testing: schoolsites.

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health, including, but not limited to, conducting research, studies, and demonstration programs relating to the provision of a dependable, safe supply of drinking water, enforcing the federal Safe Drinking Water Act, adopting implementing regulations, and conducting studies and investigations to assess the quality of water in private domestic water supplies. The act requires the state board to establish a grant program, in consultation with the State Department of Education, to award grants to local educational agencies for the purposes of improving access to, and the quality of, drinking water in public schools serving kindergarten or any of grades 1 to 12, inclusive, and preschools and child day care facilities located on public school property.

This bill would require a community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, to test for lead in the potable water system of the schoolsite before January 1, 2019. The bill would require the community water system to report its findings to the schoolsite, as specified, and, if the schoolsite's lead level exceeds a certain level, to test a water sample from the point at which the schoolsite connects to the community water system's supply network. The bill would require the local educational agency, if the lead level exceeds the specified level at a schoolsite, to notify the parents and guardians of the pupils who attend the schoolsite or preschool. The bill would require the local educational agency to take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist and would require the local educational agency to work with the school site to ensure that a potable source of drinking water is provided for students. The bill would require a community water system to prepare a sampling plan for each schoolsite where lead sampling is required under these provisions. By imposing additional duties on local educational agencies, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

The people of the State of California do enact as follows:

SECTION 1. Section 116277 is added to the Health and Safety Code, to read:

116277. (a) (1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.

(2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.

(3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b) (1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c) (1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The

community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) "Local educational agency" means a school district, county office of education, or charter school located in a public facility.

(2) "Potable water system" means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.

SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

O

OFFICE OF THE GOVERNOR

OCT 9 2015

To the Members of the California State Senate:

I am returning Senate Bill 334 without my signature.

This bill requires a school district that has a drinking water source that does not meet the Environmental Protection Agency's drinking water standards to provide alternative drinking water to their students.

I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude.

As our first order of business, local schools should understand the nature of their water quality problem, if there is one. Accordingly, I am directing the State Water Resources Control Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their lead and copper rule. School districts should utilize this information to ensure all students are provided safe water.

Sincerely,

Edmund G. Brown Jr.

GOVERNOR EDMUND G. BROWN JR. • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

Senate Bill No. 334

Passed the Senate September 10, 2015

_____

Secretary of the Senate

Passed the Assembly September 8, 2015

_____

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day of _____, 2015, at _____ o'clock ____M.

_____

Private Secretary of the Governor

CHAPTER _____

An act to amend Sections 32242 and 38086 of, to add Sections 32241.5, 32246, and 32249 to, and to add Article 13 (commencing with Section 49580) to Chapter 9 of Part 27 of Division 4 of Title 2 of, the Education Code, relating to pupil health.

LEGISLATIVE COUNSEL'S DIGEST

SB 334, Leyva. Pupil health: drinking water.

(1) Existing law requires a school district to provide access to free, fresh drinking water during meal times in school food service areas, unless the governing board of a school district adopts a resolution stating that it is unable to comply with this requirement and demonstrating the reasons why it is unable to comply due to fiscal constraints or health and safety concerns. Existing law requires the resolution to be publicly noticed on at least 2 consecutive meeting agendas and approved by at least a majority of the governing board of the school district.

This bill would delete the provision authorizing a school district to adopt a resolution stating that it is unable to provide access to free, fresh drinking water during meal times. The bill would instead specify that a school district shall provide access to free, fresh, and clean drinking water during meal times through the use of drinking water access points, as defined. By imposing additional duties on school districts, this bill would impose a state-mandated local program.

This bill would require a school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant to close access to those drinking water sources, to provide alternative drinking water sources, as specified, and to notify specified persons if the school district is required to provide those alternative drinking water sources. By imposing additional duties on pupil schools and school districts, this bill would impose a state-mandated local program.

(2) Under existing law, known as the Lead-Safe Schools Protection Act, the State Department of Public Health is required to perform various activities related to reducing the risk of exposure

to lead hazards in public schools, including, among other activities, working with the State Department of Education to develop voluntary guidelines to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures.

This bill would repeal the requirement that the State Department of Public Health develop voluntary guidelines. The bill would instead require the State Department of Education to make information available to school districts about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools. The bill would prohibit drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead from being provided at a school facility. The bill would require a public school that has lead-containing plumbing components to flush all drinking water sources at the beginning of each schoolday, except as provided. By imposing additional duties on public schools and school districts, this bill would impose a state-mandated local program.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

The people of the State of California do enact as follows:

SECTION 1. Section 32241.5 is added to the Education Code, to read:

32241.5. The department shall make information available to school districts, by posting on its Internet Web site or through any other means for distributing information it deems effective, about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools.

SEC. 2. Section 32242 of the Education Code is amended to read:

32242. The State Department of Public Health shall do all of the following:

(a) Design and implement a strategy for identifying the characteristics of high-risk schools and provide a basis for statewide estimates of the presence of lead in schools attended by young children.

(b) Conduct a sample survey, as described in Section 32241, to determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the State Department of Public Health for this purpose. To the maximum extent possible, limited sample testing shall be used to validate survey results. The State Department of Public Health shall compile and summarize the results of that survey and report those results to the Legislature and the department.

(c) Within 60 days of the completion of testing a schoolsite, the State Department of Public Health shall notify the principal of the school or director of the schoolsite of the survey results. Within 45 days of receiving the survey results, the principal or director, as the case may be, shall notify the teachers and other school personnel and parents of the survey results.

(d) Make recommendations to the Legislature and the department, based on the survey results and consideration of appropriate federal and state standards, on the feasibility and necessity of conducting statewide lead testing and any additional action needed relating to lead contamination in the schools.

(e) As deemed necessary and appropriate in view of the survey results, develop environmental lead testing methods and standards to ensure the scientific integrity of results, for use by schools and contractors designated by schools for that purpose.

(f) Evaluate the most current cost-effective lead abatement technologies.

SEC. 3. Section 32246 is added to the Education Code, to read:

32246. Drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead shall not be provided at a school facility.

SEC. 4. Section 32249 is added to the Education Code, to read:

32249. A school that has lead-containing plumbing components shall flush all drinking water sources at the beginning of each schoolday, consistent with protocols recommended by the United

States Environmental Protection Agency. A school is not required to flush drinking water sources that have been shut off or have been certified as meeting the United States Environmental Protection Agency's drinking water standards for lead.

SEC. 5. Section 38086 of the Education Code is amended to read:

38086. (a) A school district shall provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the federal National School Lunch Program or the federal School Breakfast Program are served or consumed. A school district may comply with this section by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

(b) A school district shall comply with this section through the use of drinking water access points.

(c) For purposes of this section, "drinking water access point" is defined as a station, plumbed or unplumbed, where pupils can access free, fresh, and clean drinking water. An unplumbed access point may include water bottles and portable water dispensers.

SEC. 6. Article 13 (commencing with Section 49580) is added to Chapter 9 of Part 27 of Division 4 of Title 2 of the Education Code, to read:

Article 13. Drinking Water

49580. (a) A school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant shall close access to those drinking water sources immediately upon receipt of test results or notification from the public water system.

(b) (1) If, as a result of closing access to a drinking water source pursuant to subdivision (a), a schoolsite within a school district no longer has the minimum number of drinking fountains required pursuant to Chapter 4 (commencing with Section 401.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), the school district shall provide alternative drinking water sources at that schoolsite.

(2) An alternative drinking water source provided pursuant to this subdivision while the source of contamination is being mitigated may be from plumbed or unplumbed sources. Unplumbed sources may include, but are not limited to, portable water sources and bottled water.

(c) A school district shall notify parents or legal guardians, pupils, teachers, and other school personnel of drinking water test results, immediately upon receipt of those test results, if the school district is required to provide alternative drinking water sources.

SEC. 7. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

Approved _____, 2015

_____

Governor

The Washington Post

Real Estate

School quality is tied home prices in new study. But other factors may affect values.

By Kenneth R. Harney Real Estate Columnist October 4, 2013 Email the author

It's a key question for many home buyers who have or plan to have young children: We want a house in an area with good schools, but what sort of price premium — if any — will we have to pay?

Academic research studies in recent decades generally have found that, all other factors being held equal, you pay somewhat more for houses in highly rated school districts compared with homes in neighborhoods where the schools have lower ratings and test results.

Now a national realty brokerage, Redfin, has come out with a study that purports to put hard numbers on the pricing differential. Using a huge database of about 407,000 home sales and nearly 11,000 elementary school districts in 57 metropolitan markets, the study concluded that, on average, buyers pay $50 more per square foot for homes in top-rated school districts compared with homes served by average-rated schools. The study's data came from multiple listing services plus school characteristics and test scores provided by the research firms GreatSchools and Onboard Informatics.

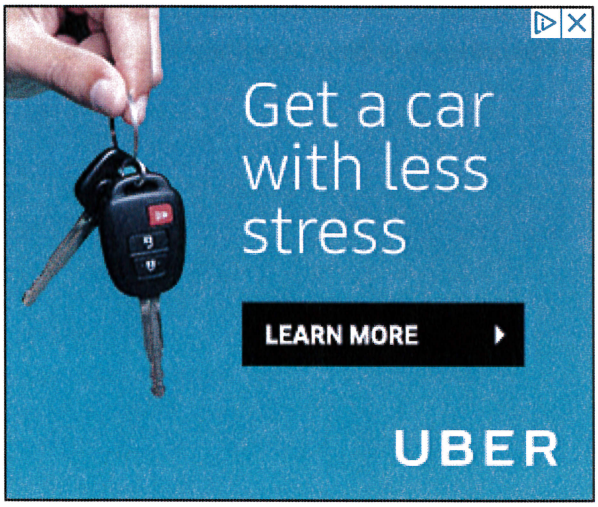

The net result, according to Redfin, is that the price differential for similar homes — same square footage, number of bedrooms and baths — that are located near each other but served by different school districts can range from tens of thousands to hundreds of thousands of dollars. In some expensive areas, such as coastal California, "homes in the highest ranking school zones" come with cost differentials ranging from $300,000 to nearly $500,000.

Even when similar homes are separated from each other by just a school boundary line — half a mile to three-quarters of a mile apart — the price gaps can be significant.

To illustrate the point, the study focused on five pairs of recent home sales. One case in Alexandria involved what Redfin termed "nearly identical" homes — both with four bedrooms, three baths and 3,000 square feet of living space — located three-quarters of a mile apart. For one house, the local school ratings were high. For the other, lower. The price premium: $130,000, or 16 percent.

The study offered parallel examples in San Diego, Seattle, Gilbert, Ariz., and Beaverton, Ore. Researchers found large pricing differences between home sales in highly rated school districts compared with average-ranked districts in major metropolitan areas from coast to coast, including Los Angeles, Boston, Miami, Washington, Charlotte, Chicago, Seattle, San Diego, San Antonio and Las Vegas, among others. The study defined top-rated schools as those with test scores in the 90th percentile and above in their respective states, and average schools as those in 40th to 60th percentiles.

But hold on. Could these apparently large pricing differences be attributable solely to school quality? Are test scores from elementary schools really so powerful that they can add such hefty premiums onto the prices of "identical" houses that are simply on different sides of a district school line?

Take another look at the Redfin study. Unlike academic studies that employ sophisticated statistical techniques to separate out multiple other variables that may be influencing the pricing disparities, Redfin did no regression analyses on its data.

Tommy Unger, the principal researcher for the study, conceded to me in an interview that "we wanted to tell the high-level story" for the home buyer and therefore did not analyze the data with the sort of statistical rigor that would be necessaryto prove a point scientifically — in this case, how much more buyers pay for top schools.

Also, although the study said the houses it used for comparison were "identical," there was no attempt at creating true "comparables" as in an appraisal report detailing interior condition, improvements, neighborhood facilities and amenities, views and other locational pluses and minuses, all of which can affect pricing. The homes highlighted in the study were similar in number of bedrooms, baths and interior square footage. Potentially, that leaves out a lot.

For example, in the pair of Alexandria houses selected to show a $130,000 price disparity across school lines, local real estate agents said there were important differences that the Redfin analysis missed: a community pool open to all residents in the higher-priced neighborhood, a strong sense of community involvement and "walkability" designed into the neighborhood's physical layout — all of which increase value.

"All the boxes are checked" to make that neighborhood more attractive and in demand, said Sue Goodhart, a broker with the McEnearney Associates, a firm that specializes in the area.

"It's just not all about the schools."

***Ken Harney**'s e-mail address is kenharney@earthlink.net.*

5 Comments

The Washington Post

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Survey: Buyers Will Pay More for Good Schools

July 30, 2013

Feedback

More than 44 percent of home buyers who plan to buy a home within the next two years said they would be willing to go over their budget by up to 10 percent in order to buy in their preferred school boundaries, according to a new survey by realtor.com®.

Three out of five home buyers surveyed said that school boundaries greatly impact their home purchasing decision. Nearly 9 percent of buyers indicated that they'd be willing to pay 11 to 20 percent above their budget to get a home in a desirable school district, the survey found. About 17 percent of buyers said they want to live within a mile of a school so their children can walk there.

Some home buyers said they'd even be willing to trade certain home amenities for good schools: About 62 percent said they'd give up a pool or spa, 50 percent would give up accessibility to shopping, and nearly 44 percent would pass on a bonus room.

"Our survey demonstrates the large impact school boundaries have on those looking to purchase a home," says Barbara O'Connor, chief marketing officer at Move Inc.

Metropolitan Policy Program
at BROOKINGS

Housing Costs, Zoning, and Access to High-Scoring Schools

Jonathan Rothwell

"Limiting the development of inexpensive housing in affluent neighborhoods and jurisdictions fuels economic and racial segregation and contributes to significant differences in school performance across the metropolitan landscape."

Findings

An analysis of national and metropolitan data on public school populations and state standardized test scores for 84,077 schools in 2010 and 2011 reveals that:

- **Nationwide, the average low-income student attends a school that scores at the 42nd percentile on state exams, while the average middle/high-income student attends a school that scores at the 61st percentile on state exams.** This *school* test-score gap is even wider between black and Latino students and white students. There is increasingly strong evidence—from this report and other studies—that low-income students benefit from attending higher-scoring schools.

- **Northeastern metro areas with relatively high levels of economic segregation exhibit the highest school test-score gaps between low-income students and other students.** Controlling for regional factors such as size, income inequality, and racial/ethnic diversity associated with school test-score gaps, Southern metro areas such as Washington and Raleigh, and Western metros like Portland and Seattle, stand out for having smaller-than-expected test-score gaps between schools attended by low-income and middle/high-income students.

- **Across the 100 largest metropolitan areas, housing costs an average of 2.4 times as much, or nearly $11,000 more per year, near a high-scoring public school than near a low-scoring public school.** This *housing cost gap* reflects that home values are $205,000 higher on average in the neighborhoods of high-scoring versus low-scoring schools. Near high-scoring schools, typical homes have 1.5 additional rooms and the share of housing units that are rented is roughly 30 percentage points lower than in neighborhoods near low-scoring schools.

- **Large metro areas with the least restrictive zoning have housing cost gaps that are 40 to 63 percentage points lower than metro areas with the most exclusionary zoning.** Eliminating exclusionary zoning in a metro area would, by reducing its housing cost gap, lower its school test-score gap by an estimated 4 to 7 percentiles—a significant share of the observed gap between schools serving the average low-income versus middle/higher-income student.

As the nation grapples with the growing gap between rich and poor and an economy increasingly reliant on formal education, public policies should address housing market regulations that prohibit all but the very affluent from enrolling their children in high-scoring public schools in order to promote individual social mobility and broader economic security.

Introduction

Education is enormously important to human welfare. At the individual level, education leads to higher incomes, better labor market performance, higher social status, increased participation in civil society, and better health.[1] These benefits cannot be reduced to genetic advantages. Given a set of identical twins, the twin that acquires more education earns significantly higher income.[2] Likewise, people that accidentally receive more education—because of the timing of their birth or proximity to educational institutions—also earn higher wages, and the wage premium for education is roughly equal across racial groups.[3]

Education is also increasingly recognized as a key contributor to regional and national prosperity. Researchers find that human capital—measured by education—is the cause of historic economic development, higher living standards over any period, and a more vibrant and trustworthy civil society.[4]

Despite its importance, huge inequalities in educational attainment persist across income and racial/ethnic groups. Blacks aged 25 and older are twice as likely, and Hispanics four times as likely, as whites to have not completed high school.[5] Post-secondary degree attainment rates are also much higher for whites than these groups. At the same time, the academic achievement gap between rich and poor is growing.[6] The majority of high school dropouts—60 percent—come from the bottom 20 percent of families by income.[7] Moreover, only 5 percent of students enrolled in the most competitive universities come from the bottom quintile of parental socio-economic status, while 70 percent come from the top quintile.[8]

These statistics are troubling enough in terms of what they imply about equality of opportunity in the United States, but they also signal immense damage to the nation's economic vibrancy. When large numbers of students are not educated up to their potential, it drains the pool of potential inventors, researchers, civic leaders, and skilled laborers that would otherwise nurture innovation and economic prosperity.

With these challenges in mind, policy leaders have taken a number of steps over the past few decades to expand access to high-quality education for disadvantaged groups. These reforms have included efforts to equalize school funding, largely by increasing the share of financing provided by federal and state governments. In big cities, an increasing number of reform-oriented mayors are wresting control of school administration from school boards and unions. Charter schools and vouchers programs have proliferated in some states with the goal of providing children with alternatives to the poor-performing neighborhood schools to which they would be otherwise assigned. Several policies and programs like merit pay and Teach for America aim to improve low-performing schools by attracting more talented teachers to those environments.

While all of these efforts deserve careful consideration, none directly addresses one of the central issues that limit educational opportunity for low-income and minority children: their disproportionate concentration in low-performing schools. In particular, limiting the development of inexpensive housing in affluent neighborhoods and jurisdictions fuels economic and racial segregation and contributes to significant differences in school performance across the metropolitan landscape.

While the connections between the real estate market and school performance have been widely studied, this is the first nationwide report to estimate the actual costs associated with living near a given public school. Likewise, while zoning has been studied intensely, this is the first national report to link zoning data with school test score data.

This paper proceeds as follows. The first section surveys academic research on educational achievement with an emphasis on the relative effects of schools and families in shaping educational outcomes. A methodology section provides a summary of data sources and defines the main variables measured. The paper then examines differences in school test score performance among different racial/ethnic/income groups, how these differences vary across metropolitan areas, and implications for educational outcomes. Subsequent findings explore potential explanations for school inequality, including large gaps in housing costs, which are correlated with exclusionary zoning laws. The paper concludes with a brief discussion of public policy implications.

Background

The importance of high-quality schools in the context of family socioeconomic status

Empirical research on intergroup disparities in test score performance rejects simple genetic explanations and points to large differences in environmental quality.[9] These environmental differences could take many forms, with access to high quality education being just one important factor. For example, much of a child's education takes place outside the classroom through interactions with family members and neighbors. The social science literature has not reached a consensus as to the relative importance of factors such as school quality, family, or other non-genetic variables on educational achievement.

Some education scholars find that schools only make a small difference to observable outcomes like test scores and differences in socio-economic status are more important in explaining performance gaps.[10] This was a major finding from the 1966 Coleman report, although the importance of schools was entirely rejected.[11] More recently, one study estimates that 75 percent of the early childhood black-white test score gap is the result of measurable differences in family background—such as socio-economic status and the number of books in the home.[12] One important channel may be parental educational investments: Mothers with a college education spend an average of 4.5 hours more per week with their children than mothers with no college education.[13] More educated parents are also more likely to discuss school related matters with their children and attend meetings—all of which is associated with higher student achievement.[14] Moreover, the quality of learning tends to be greater for children of more educated parents, who are exposed to thousands more unique words per hour of interaction than children of less educated parents.[15] Further evidence shows that poor children aged five and under receive less emotional support and cognitive stimulation from their mothers, who are also far more likely to exhibit symptoms of depression.[16]

Other research finds that the quality of schooling is enormously important to both test scores and future economic success. Across a large number of empirical studies economists have found that student exposure to high quality schools—measured by test scores, peer effects, and teacher quality—substantially increases the probability of economic success later in life.[17] Many studies also find that disadvantaged students do better when randomly assigned to charter schools or private schools (after winning a lottery) compared to similar students who attend traditional public schools.[18] Yet, other scholars find that attending higher-scoring schools does not itself affect test scores.[19]

Turning more specifically to racial differences, scholars have found very large and positive effects on blacks as a result of school integration.[20] Studies by Guryan and Johnson, for example, find that school desegregation policies produce large-scale generational effects in educational attainment. Along similar lines, scholars have found that some, and even all, of the racial test score gap can be eliminated when blacks attend high quality schools.[21] Likewise, in important recent work from the economists Hastings and Weinstein suggests that desegregation would have large and significant effects on student achievement.[22] Using data from Charlotte, they find that students who win admission via lottery to higher-scoring schools perform significantly better.[23]

And yet, on average, blacks and other disadvantaged groups still attend schools with the lowest test scores. In a recent report with 2004 data, John Logan finds that students from disadvantaged racial backgrounds—blacks, Hispanics, and Native Americans—attend schools that perform far worse than those attended by whites and Asians, and that residentially segregated large metropolitan areas—often in the Northeast and Midwest—tend to exhibit the most unequal schooling quality between races.[24]

Another strand in the literature explicitly links educational opportunity and success to metropolitan and neighborhood housing characteristics.[25] Card and Rothstein find that somewhere between 25 percent and 60 percent of the SAT test score gap between blacks and whites can be explained by residential segregation at the metropolitan scale.[26] Cutler and Glaeser find that segregation can account for 100 percent of the black-white gap in educational outcomes among young adults.[27] Massey finds that black and Hispanic students admitted into selective college performed much better if they grew up in racially integrated neighborhoods and concludes that segregation causes environmental stress and inadequate preparation that weakens college performance.[28]

Debate on the Experimental Evidence of Neighborhood Effects

One criticism of studies that compare minorities living in more or less integrated settings is that they might overstate the effects of neighborhood circumstances by failing to fully capture less tangible family effects—like time spent reading books to children—or personal motivation that might sort more capable families into better neighborhoods.[29]

To estimate experimental effects of neighborhoods, researchers have taken advantage of two public housing market interventions that were designed to improve living conditions for the poor. One in Chicago, called the Gautreaux program, allowed public housing residents and applicants to go on a waiting list from which they would receive a voucher to pay their rent in a suburban neighborhood that was at least 70 percent white, or a typical urban housing unit, depending on assignment from the Chicago Housing Authority.[30] Black children who grew up in families that were given the voucher for suburban, integrated, neighborhoods were far more likely to attend better schools, make friends with whites, and go on to four-year colleges.[31] The program operated from 1976 to 1998.

Other experimental research has yielded less encouraging results that nonetheless remain contested. The Moving to Opportunity (MTO) program was operated in a few cities by the Department of Housing and Urban Development in the 1990s. The approach randomly assigned public housing participants to three categories: no housing assistance, normal Section 8 voucher assistance with no geographic stipulations, and experimental housing assistance for those who move to a neighborhood with poverty rates of 10 percent or lower.

The experimental voucher group did move to neighborhoods with lower poverty rates than the control group, but researchers found no significant benefit to male youth after an average of five years and conclude by casting doubt on the importance of "neighborhood effects."[32] This interpretation has been criticized, however, because the voucher intervention resulted in only very small differences in neighborhood quality, as measured by access to high-scoring schools, exposure to middle-class families, and racial integration.[33] The MTO scholars have responded to these criticisms by looking more explicitly at the effects of neighborhood exposure to poverty over time (for five years on average) on adult incomes.[34] Other scholars found no benefits from the experimental voucher program on student test score performance, but they too found that the vouchers did little to improve the school environment.[35] Meanwhile, Wodtke and colleagues find evidence that growing up in poor neighborhoods leads to cumulative long-term harm that is unlikely to be overcome by a short-period of living in an affluent neighborhood—much less a segregated working-class neighborhood with low-scoring schools, as was the case in the MTO experiment.[36]

The relationship between schools and housing costs

Economists have found that parents are willing to pay more to live near higher-scoring schools, but there have been just a few studies that link housing costs and school opportunity to zoning or housing policies.[37] After examining data on low-income families randomly selected to live in various affordable housing projects in Montgomery County Maryland, Schwartz concludes that county government inclusionary zoning policies raise the test scores of disadvantaged students living in public housing by allowing them to live in affluent neighborhoods with higher-scoring schools.[38] A recent quasi-experimental study of a small group of low-income families living in an affluent suburban affordable housing project in New Jersey found that children spent more time reading outside of school compared to a control group, which indirectly boosted their grades.[39] In theoretical work, Hanushek and Yilmaz find that exclusionary zoning policies are likely to exacerbate inequalities in educational attainment across income groups.[40]

Finally, it is well documented that zoning increases housing prices.[41] Yet, there are no explicit studies of the effects of zoning on access to high quality education. Because of difficulties in gathering and quantifying information on zoning—which is the province of local governments—most academic work analyzes zoning data for small regions.[42] Yet, recent research has taken advantage of new survey data on zoning and concludes that anti-density zoning—restrictions that forbid or deter more affordable multi-family housing—exacerbate the segregation of households into different neighborhoods according to income and race.[43] The results of these studies suggest that changing zoning laws from the most exclusionary metropolitan areas to the least would reduce black-white residential segregation by at least 35 percent and economic segregation by over 40 percent.[44]

A Brief History of Zoning

In the decades after the Civil War, U.S. cities had almost no regulations on where housing and commercial properties could be located and how they could be used.[45] As it happens, there was also very little segregation by class, according to urban historians, and segregation by race was much lower in 1890 than in any time thereafter (even though the rights of blacks were highly restricted economically and socially).[46] In the late 19th century, regulations on housing began as a way to guard against exploitative and unhealthy tenement conditions and to protect people things like industrial pollution and noise.[47] Zoning ordinances that explicitly prohibited blacks from white neighborhoods also became common, until struck down by the Supreme Court in 1917.[48]

Meanwhile, in the late 19th and early 20th Centuries, major demographic changes were occurring in U.S. metropolitan areas. As immigrants moved into cities, affluent professionals moved into suburbs and began to set up zoning laws in the 1920s.[49] In the wake of a Supreme Court decision in favor of zoning, the number of municipalities with zoning legislation went from 368 to over 1,000 from 1925 to 1930.[50] The growth in regulation continued in subsequent decades, even as Civil Rights legislation otherwise improved housing accessibility for middle-class minorities. By 1968, 5,200 jurisdictions in metropolitan areas had zoning ordinances, and as many as 10,000 governments in total possessed land use power.[51]

Despite all this, a strong movement developed in opposition to "exclusionary" zoning. Federal court cases stuck down zoning ordinances that denied the construction of multi-family or low-income housing on dubious grounds—arguing that the discriminatory effect of these laws against blacks and the poor required that they pass strict scrutiny.[52] Scholars like Robert Babcock in 1966 and Anthony Downs in 1973 published influential and highly critical books against exclusionary zoning. Around the same time, Robert Linowes and Don Allensworth wrote a book criticizing zoning's damage to the economic opportunity of the poor.[53] Most aptly, they argued: "Because of zoning, the 1954 Supreme Court integration decision has become impossible to implement in that it cannot be carried out short of busing students all over town."[54]

With this strong intellectual foundation, opponents of economic segregation won a major victory in the New Jersey Supreme Court in 1975.[55] Municipalities were directed by the court to provide their "fair share" of affordable housing. A 1977 Pennsylvania Supreme Court case also ruled against exclusionary zoning, and created the standard that towns must provide their fair share of land uses so as not to violate the property rights of developers, (though it mandated nothing about allowing affordable housing under the zoning laws).[56]

Yet, in the early 1970s, court mandates to integrate schools through busing were received by many whites with intense opposition, and following a 1974 Supreme Court decision that effectively shielded outer suburbs from this policy the migration of whites to these places increased considerably.[57] The tide in favor of integration seemed to be turning and was dealt a major blow in 1977 when the U.S. Supreme Court case upheld the zoning policies in suburban Chicago against a non-profit development corporation that aimed to construct multi-family units for racially integrated low-income residents at the behest of the land owner, a Catholic religious order.[58]

After this decision, the zoning reform movement ground to a halt. As one scholar put it, "As we approach the 21st century, African-Americans' ability to challenge exclusionary zoning as a violation of constitutional rights is virtually nonexistent."[59] Even in New Jersey, the apparent victory achieved at the judicial level was dramatically undermined by the state legislature through the passage of the 1985 New Jersey Fair Housing Act. This bill allowed exclusive municipal governments to effectively pay more urban jurisdictions for the right to remain exclusionary.[60] This policy was eventually eliminated in 2008, but the current governor of New Jersey has effectively stopped enforcing the requirement to provide fair housing.[61] Meanwhile, the federal government has never passed legislation addressing exclusionary zoning, and it is entirely absent as an issue in Presidential campaigns.

In some places battles over zoning and affordable housing have continued, slowly, at the local level. For example, in New York, the Westchester County government was sued for misleading HUD about plans to build racially integrated housing with federal money, but even a court settlement in 2009 has not yet spurred significant action to redress the problem.[62]

Methods

Data for this report come from a variety of sources. This section offers a brief description of the sources and methods, while the external appendix on the Brookings website (http://www.brookings.edu/papers/2012/0419_school_inequality_rothwell.aspx) provides greater detail.

School Data

Public school test score data are provided by GreatSchools, which compiles state-mandated test score results for every public school in the country for which data is available (84,077 schools). The scores are reported as the share of students who score at or above proficiency, in a given subject for a given grade. Since states write the exams, administer them, and implement their own standard for proficiency, state averages are subtracted from school scores for each subject, grade, and year to calculate a single **state-adjusted score** for each school. For each school, the most recent year's test score data are used, with over 90 percent coming from 2010 and 2011.[63]

Student enrollment data for 2009-2010, the latest available at the time of writing, come from the National Center for Educational Statistics (NCES) Common Core of Data. Enrollment data are provided by race and for the number of students eligible for the free or reduced price lunch program. Students are eligible for the free lunch program if family income is less than or equal to 1.3 times the poverty line and for reduced price lunch if less than or equal to 1.85 times the poverty line.[64] In this report, these groups are referred to as "poor" and "low-income," respectively. NCES data from 1997-1998, the earliest available online, are used to examine trends in exposure of students to different groups.

The **school test-score gap** is one of this report's key measures. It is defined as the difference in percentile ranking (on a scale of 1-100) for the average school attended by two different groups of students. The percentile ranking for each school is based on the state-adjusted score described above. Each school's state-adjusted score is ranked against all other schools in the country when presenting national results. In other words, the highest-rated school in the country is the one that most exceeds its state average. For metropolitan area results, however, the state-adjusted score is ranked only against schools in the same metropolitan area (which, for some metros, includes schools in adjacent states). So the metro test score gap ranks schools (by state adjusted test scores) only against schools in the same metropolitan area.

For each group, the average test score is calculated using a weighted average based on the enrollment of that group. Unless otherwise noted, findings report the difference between low-income students (those who are deemed eligible for the free or reduced lunch program—meaning incomes are less than 1.85 times the federal poverty line) and those who are middle/high-income (meaning students ineligible for free or reduced price lunches), but the school test-score gap is also reported between whites and minority racial groups.[65]

For national and metropolitan summary data, the school test score gap is reported using data on all public schools. For parts of the analysis that compare the test score gap to housing costs, the test score gap is calculated only for the 48,008 schools in which a majority of students are enrolled in elementary grades (i.e., kindergarten to fifth grade).

Location and housing costs

School districts around the country create "attendance zones" to decide which addresses within the district are allowed to attend which schools. Typically, districts assign students to a nearby school, and in most cases, students live within two miles of their school; indeed roughly one third of elementary and middle school students live within a mile of their school, according to national survey data.[66] Unfortunately, data on school attendance zones are not widely available. Therefore, researchers must come up with a proxy to measure characteristics of its attendees and their families. One can use NCES data on the longitude and latitude of every public school to assign census tracts, but those tracts are typically too small (average population of 4,000) to represent attendance zones.[67]

To deal with this problem, this study creates a **hypothetical attendance zone** surrounding each school using both ArcGIS software and census tract data from the American Community Survey

(ACS) 2005-2009 5-year estimates. Attendance zones are typically wider (and therefore less tied to nearby residence) for secondary schools since they serve a smaller metropolitan age cohort (9th grade through 12th) compared to primary schools (grades kindergarten through 5th) and thus pull in students from around the metropolitan area into larger individual schools. To maximize the probability that proximity is important to attendance, this study calculates housing costs only for schools in which a majority of students are enrolled in elementary grades (i.e., kindergarten to fifth grade). Census tracts within 10 miles of these schools are ranked by distance from the school to the center of the tract. Each tract is given a weight equal to the number of students enrolled in school from kindergarten to fifth grade as reported on the ACS. Schools are "assigned" to the nearest census tract until enrollment equals the cumulative population of enrolled students.

Housing cost data for census tracts come from the ACS as well. Median monthly housing costs associated with renting or owning were used to calculate a weighted average of neighborhood housing costs, using the share renting and share owning in the tract as weights. The housing costs for a given school are therefore a weighted average of tract housing costs, using tract enrollment shares as the weight.

The **housing-cost gap** is defined for a given metropolitan area as the average costs of living near schools in the top 20th percentile on test scores divided by the average costs of living near schools in the bottom 20th percentile on test scores. This ratio indicates the relative costs of moving from a neighborhood with a low-scoring school to a neighborhood with a high-scoring school.

Zoning

Comparable national data on zoning or land use regulations is very rare, since they are not collected by state and federal governments. A handful of economists and social scientists have conducted their own surveys in recent years or focused their analysis on regional case studies. This report pulls together four different sources of information on zoning. The methods appendix discuses them in detail.

➤ *Pendall survey:* In 2003, Rolf Pendall conducted a representative survey of the 50 largest metropolitan areas (now 49 due to a statistical merger). The results were analyzed and reported in a Brookings report co-authored by Robert Puentes in 2006.[68] The main survey question used here is: "What is the maximum number of units allowed in the jurisdiction per acre of land?" This is available for 1,677 local governments in 50 of the largest metropolitan areas in the United States, as of 2000. The local measures are aggregated to metropolitan areas, since the survey sample was designed to be representative of local governments in those areas. The index can be interpreted as a measure of anti-density or exclusionary zoning in the metropolitan area.

➤ *Zoning law firm index*: To overcome the limitations of a small sample size of metros, the report introduces a zoning law firm index for the state of each school. States with a disproportionate number of law firms that specialize in zoning or land use law are likely to have a disproportionate number of disputes over land use because of restrictive zoning laws. To implement this, a search was conducted of lawyers.com, a Lexis Nexis website that advertises legal services across the United States.[69] The website allows one to search for firms by area of law and includes "zoning, planning, and land use" as a category. To adjust for the size of the state and any differences in propensity to advertise on lawyers.com, the number of law firms with zoning specialties is divided by the total number of law firms. The state values are assigned to schools based on state location, and then averaged across all schools in the metropolitan area. For metros that are entirely in one state, the metro average equals the state value. The metropolitan index is highly correlated with the Pendall measure for the 49 metropolitan areas in which they overlapped (correlation coefficient of 0.57). Overall, older states with a high volume of low density housing tend to have more law firms specializing in zoning; this is consistent with the pattern of urbanization and zoning described in the literature on zoning.

➤ *Wharton School survey index:* Aggregated measures of zoning policy lose some of the local detail and introduce error. To provide that detail, two other surveys are used. One is a nationally representative survey of local governments conducted by scholars at the Wharton School at the University of Pennsylvania.[70] It is referred to here as the "Wharton Index." It is not representative at the metropolitan scale, so only the local observations are used. 922 observations are successfully matched to metropolitan areas and local governments with public school test score data. To measure exclusionary zoning with these data, three survey questions are quantified and turned into an equally weighted

index that varies from zero to 100. Two of those questions asked local officials to rate the importance of regulating density on single family and multi-family units on a one to five scale. The third asked for the jurisdiction's minimum lot size requirement—that is the size of the lots in acres required for a unit of housing.

➤ *Eastern Massachusetts zoning index:* Finally, for a comprehensive look at a particular region, regulatory data is used from a 2004 study of housing regulations in Massachusetts by the Pioneer Institute and Rappaport Institute.[71] Researchers there collected data from a variety of public and private resources to put together a database of regulations for 187 local governments, which encompasses all local governments in Massachusetts that are within 50 miles of Boston. Four variables are used in the report that are considered especially relevant to restrictions on dense or inexpensive housing: Minimum lot size, whether multi-family housing is allowed only be special permit, the longest length of frontage requirements in the town, and the percentage of zoning districts in the town that require large frontage requirements. These variables are individually scaled to percentiles and then averaged and re-scaled to a single comprehensive percentile index, ranging from one to 100.[72]

A note on empirical methods

The quantitative findings below that identify correlations and possible causal relations here are supported by more detailed statistical analysis. The data sources and regression methods used as the basis of these findings are discussed and shown in the external appendix found here.

Website

These main variables—including the school test-score gap and the housing cost gap—are available for all metros on the Brookings website, which also includes profiles for the 100 largest metropolitan areas and mapping tools (http://www.brookings.edu/info/schools/school_access_interactive.aspx).

Findings

A. Nationwide, the average low-income student attends a school that scores at the 42nd percentile on state exams, while the average middle/high-income student attends a school that scores at the 61st percentile on state exams.

The Background section discusses evidence that children benefit from attending higher-scoring schools. One possible explanation for why children from disadvantaged groups lag on measures of educational achievement is that they lack access to high-scoring schools.

Nationwide data point to significant test-score gaps between the schools that low-income and black/Hispanic children attend, and the schools that other children attend. As Figure 1 illustrates, the average low-income student enrolled in public schools attends a school that scores at just the 42nd percentile of all schools in its state on standardized exams, compared to the 61st percentile for the average middle/high-income student. The average poor student (family income below 130 percent of poverty) attends an even slightly lower-scoring school (40th percentile).

Blacks and Hispanics also disproportionately attend low-scoring schools. The average black student and the average Hispanic student are enrolled in schools that score at the 37th and 41st percentiles, respectively. Meanwhile, the average white and Asian students are enrolled in schools that score at the 60th and 63rd percentiles, respectively.

The school test-score gap between groups is quite similar to the test-score achievement gap between groups at the student level. National mathematics test score data for 12th grade students show that the average black student scores 0.85 standard deviations below the average white student; for both Hispanics and low-income students, the gap is 0.68 standard deviations.[73] The data analyzed here on school test scores show that the average black student attends a school ranked 0.85 standard deviations below that which the average white student attends; for Hispanics and low-income students the difference is 0.63 standard deviations.[74]

If all racial, ethnic, and income groups were distributed evenly across schools, then the school test-score gap would be zero, even if achievement gaps persisted among different groups. However, disadvantaged groups tend to be highly segregated, based on Brookings analysis of NCES data for

Figure 1. Percentile Rank on State Exams of School Attended, Average U.S. Public School Student by Group, 2010-2011

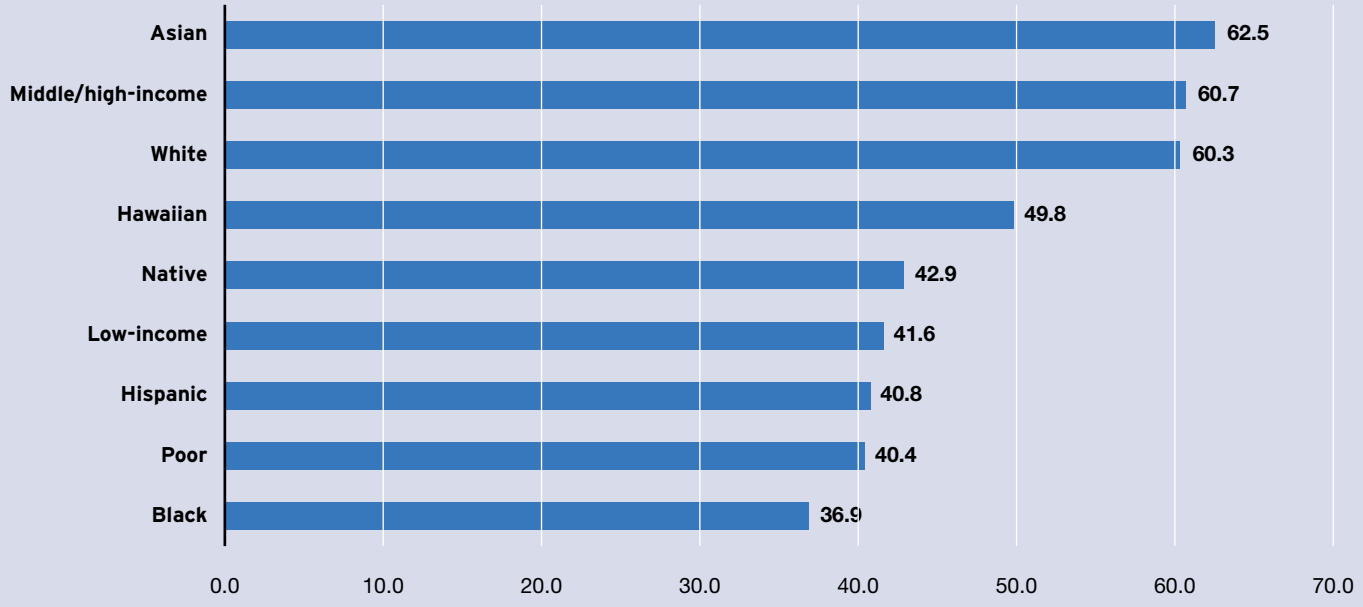

Source: Brookings analysis of data from GreatSchools and NCES. X-axis adjusts for state mean for test's grade, subject, and test year (when year varies). Averages are weighted by group share of student enrollment. Low-income refers to students eligible for the free or reduced price lunch program, meaning family income is less than 1.85 times the poverty line. Poor refers to students eligible for the free lunch, meaning family income is less than 1.3 times the poverty line. Middle/ high-income refers to students who are not eligible for free or reduced priced lunch.

84,077 public schools in the database. The average black student, for example, attends a school that is 50 percent black (and 29 percent white), whereas blacks only comprise 16 percent of all public school enrollment (and whites 54 percent). The average Hispanic student attends a school that is 55 percent Hispanic, even though Hispanics account for only 22 percent of all U.S. students. The average low-income student attends a school where 64 percent of fellow students are low-income, though they represent only 48 percent of all U.S. public school students. Moreover, poor students have become more concentrated in schools with other poor students since 1998.[75]

Only a small fraction of the nation's public schools could be described as truly integrated by income. If one defines a school as economically integrated if its share of low-income (free or reduced lunch eligible) students falls within five percentage points—plus or minus—of the metropolitan average, then only 5 percent of public schools in the 100 largest metropolitan areas meet that standard. The percentage of integrated schools is as high as 11 percent in smaller, more homogenous metropolitan areas, but for all metro areas combined, it is still under 7 percent.

Do low-income students do better in higher-scoring schools?

There is compelling evidence from studies based on lottery-based assignment or other random administrative mechanisms that poor and minority students succeed at higher rates in better-performing schools—measured by test scores or future adult outcomes.[76] Likewise, related studies show important benefits from attending classes with higher scoring students and higher "value-added" teachers.[77] In addition to those factors, teacher experience is strongly related to student outcomes but experienced

teachers are less likely to teach disadvantaged students.[78] Furthermore, teacher experience is highly correlated with school test scores, even adjusting for other factors, and the average black, Hispanic, or low income student attends a school with significantly less experienced teachers than white and Asian students.[79]

School test-score gaps thus reflect the combination of two well-recognized phenomena: achievement gaps that persist by race, ethnicity, and income; and school segregation by these same factors. As described in the Background section, however, those gaps may ultimately have more pernicious effects, to the extent they prevent disadvantaged students from accessing higher-quality learning environments (e.g., with higher-scoring peers or better teachers).

Unfortunately, the data here are not refined enough to permit a strong conclusion about how school test scores affect student performance. However, they do show that low-income students in higher-scoring schools perform better on exams than their peers elsewhere.

The results in Table 1 below show that the test scores of low-income students are highly correlated with the scores of their middle/higher-income schoolmates. In other words, low-income students perform better when their non-low-income schoolmates perform better. Low-income students who attend schools with the lowest-scoring middle/high-income students score 18.5 percentage points below the state average for their subject/grade, but those who attend schools with top-scoring middle/high-income peers score 2 percentage points above state averages. Further regression analysis finds that the proficiency rates of low-income students increase by 0.7 percentage points for every 1 percentage point increase in the proficiency rates of middle/high-income students in the same school, controlling for factors such as the school's racial diversity, enrollment, share of low-income students, pupil-teacher ratio, and location.[80]

This analysis does not reveal why low-income students who are enrolled with higher-scoring middle/high-income peers do better on state exams. It may be that teachers, parent volunteers, and/or other higher-scoring students improve the learning environment for low-income children. It may also be that parents of the low-income students enrolled in higher-scoring schools confer subtle advantages to their children that are not captured in the available data. Nonetheless, these data align with previous research finding that higher-quality school environments may improve student performance among disadvantaged groups.

Average Test Scores for Low-Income Students by Performance of Middle/High-Income Students in Same School

School quintile by middle/ high-income student performance	Average proficiency rate of low-income students relative to state mean	Average proficiency rate of middle/high-income students relative to state mean
Top quintile	2.1	23.0
Fourth quintile	-2.2	13.8
Middle quintile	-4.0	9.3
Second quintile	-7.8	4.3
Bottom quintile	-18.5	-9.7

Source: Brookings analysis of NCES and GreatSchools test score data from 51,613 schools in 35 states plus the District of Columbia. Averages weighted by NCES enrollment data.

B. Northeastern metro areas with relatively high levels of economic segregation exhibit the highest school test-score gaps between low-income students and other students.

School test-score gaps vary considerably across the country, reflecting a highly uneven landscape of racial and economic diversity, segregation, and achievement gaps among and within the nation's major

Figure 2. The School Test Score Gap in the 100 Largest Metropolitan Areas

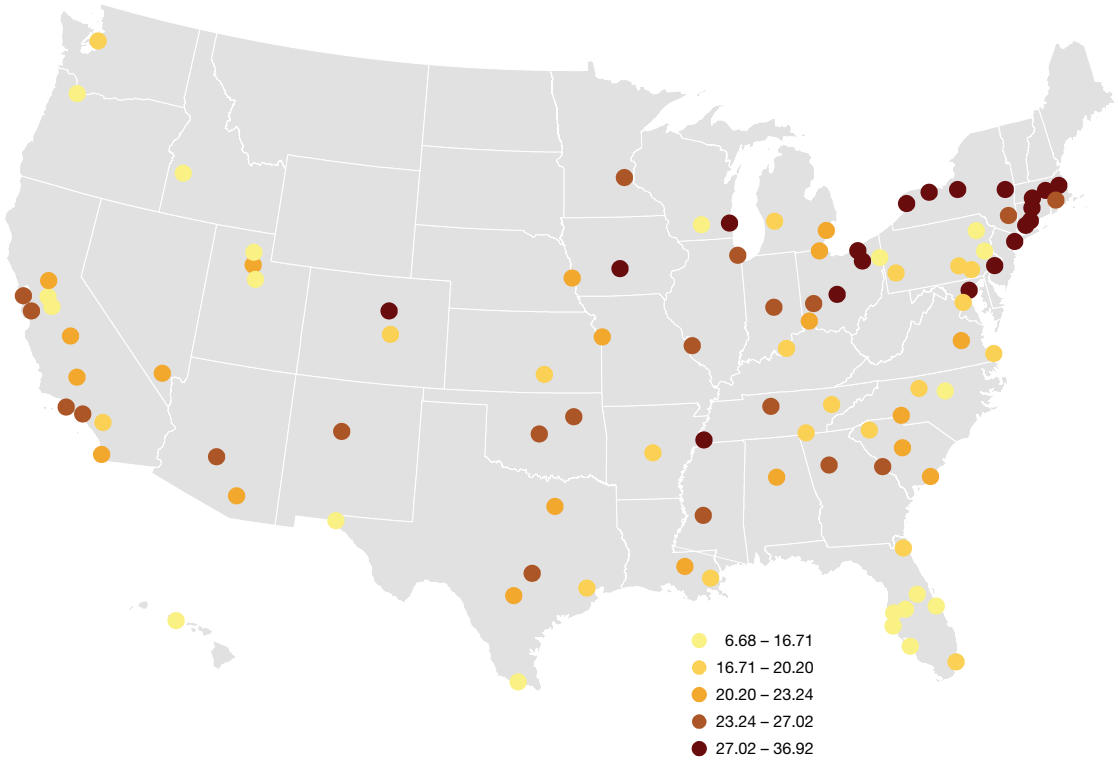

Source: Brookings analysis of data from GreatSchools and the NCES. The test score gap refers to the dierence in test score performance (on a 1-100 scale) between the average school attended by low-income students and the average school attended by middle/high income students.

metropolitan areas.

In many metropolitan areas, low-income students attend schools with far lower test scores than their middle- and high-income counterparts (Table 2). Northeastern metro areas have particularly large gaps. Indeed, six of the 10 metro areas with the highest test score gaps are in the Northeast, including Bridgeport, Hartford, New Haven, Buffalo, Rochester, and Philadelphia. At least 30 percentile points separate the school ranking of the average low-income student from the average middle/high income student. Three Midwestern metro areas—Milwaukee, Akron, and Cleveland—also rank among the 10 with the largest gaps (Figure 2).

In other metro areas, particularly those in the South and West, school test scores do not differ greatly between the average low-income and middle/high-income students. Figure 2 shows that metro areas with the smallest school test-score gaps include five in Florida (Cape Coral, North Port, Orlando, Lakeland, Palm Bay), one in Texas (El Paso), and two in the Intermountain West (Boise and Provo). Scranton and Modesto round out the list.

Not surprisingly, metropolitan school test-score gaps relate strongly to patterns of metropolitan economic segregation. Table 2 also shows a "dissimilarity index" for each metro area. That index measures the percentage of low-income students that would have to switch schools with middle/high-income students in another ZIP code in order to attain an equal distribution of enrollment by income across all ZIP codes within a metropolitan area. The index is much higher in metro areas with the highest school test-score gaps than in metro areas with the lowest such gaps.[81]

Table 2. Highest and Lowest School Test-Score Gaps and Economic Segregation Levels, 100 Largest Metro Areas, 2010–2011

	School test-score gap	Zip code segregation in student enrollment—low-income from middle/high-income
Highest school test-score gaps		
Bridgeport-Stamford-Norwalk, CT	36.9	0.61
Hartford-West Hartford-East Hartford, CT	34.5	0.54
Milwaukee-Waukesha-West Allis, WI	32.8	0.55
New Haven-Milford, CT	32.5	0.53
Buffalo-Niagara Falls, NY	31.1	0.47
Baltimore-Towson, MD	31.1	0.50
Rochester, NY	31.0	0.47
Akron, OH	30.9	0.48
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	30.8	0.53
Cleveland-Elyria-Mentor, OH	30.3	0.49
Lowest school test-score gaps		
Palm Bay-Melbourne-Titusville, FL	13.5	0.24
North Port-Bradenton-Sarasota, FL	13.0	0.26
Scranton—Wilkes-Barre, PA	12.5	0.32
Boise City-Nampa, ID	12.4	0.31
Modesto, CA	12.4	0.27
Orlando-Kissimmee-Sanford, FL	11.2	0.28
Provo-Orem, UT	9.8	0.24
Lakeland-Winter Haven, FL	8.2	0.19
Cape Coral-Fort Myers, FL	8.2	0.27
El Paso, TX	6.7	0.28
Unweighted Average for 100 Largest MSAs	**22.0**	**0.39**

Source: Brookings analysis of data from GreatSchools and the National Center for Education Statistics. Low-income students defined here as those eligible for either free or reduced price lunch. Schools are ranked by state-adjusted test scores against all other schools in the same metro.

Variation in metropolitan income inequality and demographic diversity contributes to the variation in school test-score gaps across metro areas. Metro areas with high income inequality and high median incomes tend to have significantly larger test-score gaps, while metro areas with large retirement-age populations tend to have lower test-score gaps.

Yet some metropolitan areas exhibit relatively small or large school test-score gaps in light of their underlying demographic and economic profiles. Metro characteristics including household income inequality (measured using the Gini coefficient), black and Hispanic population shares, median household income, the share of the population aged 65 and older, and the median age of the population account for about half of the variation in metro-level school test-score gaps between middle/high-income and low-income students. Table 3 compares the actual school test-score gap shown in Table 2 to the predicted test-score gap, based on the metro area's demographic and economic characteristics.

Large metro areas in the Northeast had the largest school test score gaps relative to their levels of income inequality and demographic characteristics. In particular, Buffalo, Hartford, Rochester, New Haven, and Springfield exhibit much greater school test-score disparities than one would expect based on metro characteristics alone. At the same time, four metro areas in the Midwest—Milwaukee, Des Moines, Cleveland, and Akron—have larger gaps than predicted.

On the other hand, Raleigh exceeded expectations by the largest margin. Its test score gap of 14.7 is over 10 percentage points lower than its predicted test score gap of 25.5. One possible explanation is that Wake County has a history of aggressive district-wide socioeconomic integration policies.[82]

Washington, D.C., Orlando, El Paso, Jacksonville, and Cape Coral are other Southern metro areas that maintain lower than expected test score gaps. In the West, Seattle, Portland, and Boise surpass expectations. Scranton and Madison also make the list.

As Table 2 above showed, economic segregation is associated with larger test-score gaps. That remains true after controlling for the broad economic and demographic factors listed above. As Table 3 shows, several more economically integrated metro areas provide more equitable schooling across income groups, even when their overall economic and demographic profiles would suggest otherwise.

Table 3. Metropolitan Areas with the Largest and Smallest Differences in School Test Score Gaps after Adjusting for Economic and Demographic Characteristics

MSA	Predicted gap in school test scores	Actual gap in school test scores	Percentile rank on income inequality	Zip-code enrollment segregation
MSAs with 10 largest school performance gaps compared to expectations				
Milwaukee-Waukesha-West Allis, WI	22.3	32.8	62	0.55
Hartford-West Hartford-East Hartford, CT	24.8	34.5	56	0.54
Buffalo-Niagara Falls, NY	21.9	31.1	59	0.47
New Haven-Milford, CT	23.4	32.5	69	0.53
Rochester, NY	21.9	31.0	42	0.47
Akron, OH	23.3	30.9	59	0.48
Springfield, MA	21.7	28.5	52	0.49
Des Moines-West Des Moines, IA	21.6	28.3	21	0.46
Cleveland-Elyria-Mentor, OH	23.8	30.3	81	0.49
Baltimore-Towson, MD	24.8	31.1	52	0.50
Average for group	**23.0**	**31.1**	**55**	**0.50**
MSAs with 10 smallest school performance gaps compared to expectations				
Cape Coral-Fort Myers, FL	14.8	8.2	85	0.27
Jacksonville, FL	23.8	17.0	58	0.30
Madison, WI	23.6	16.7	35	0.28
Boise City-Nampa, ID	19.4	12.4	24	0.31
Washington-Arlington-Alexandria, DC-VA-MD-WV	27.0	19.4	32	0.39
Seattle-Tacoma-Bellevue, WA	26.4	18.8	39	0.36
Portland-Vancouver-Hillsboro, OR-WA	24.2	16.6	39	0.28
Scranton—Wilkes-Barre, PA	20.1	12.5	56	0.32
Orlando-Kissimmee-Sanford, FL	19.5	11.2	54	0.28
Raleigh-Cary, NC	25.8	14.7	43	0.24
Average for group	**22.4**	**14.8**	**47**	**0.30**
Unweighted Average for 100 largest metros	**21.3**	**21.3**	**57**	**0.38**

Source: Brookings analysis of GreatSchools, National Center for Education Statistics, and the U.S. Census Bureau's 2005-2009 American Community Survey. The predicted gap is based on the average effects of metro variables such as income inequality, median income, median age, share of population over 65 years old, and the black and Hispanic share of the population.

Data for young black and Latino adults suggest that school test-score gaps may not only limit student achievement, but also matter for later outcomes like employment, enrollment, and earnings, even controlling for family income. Individual black or Latino young adults living in metropolitan areas with high-scoring schools for their groups have higher average incomes, are more likely to be enrolled or employed, and, for blacks, are more likely to have attended post-secondary school. (Table 4; see external Appendix for full results). For a young black adult, living in a metro area where blacks attend high-scoring schools is associated with $3,000 in extra income compared to a young black adult living in a metro where blacks attend low-scoring schools. This difference is highly significant. Likewise, blacks living in metros with high test scores have a 9 percentage point higher probability of having

Table 4. Effect on Income, Educational Attainment, and Employment/Enrollment, Blacks and Hispanics Aged 18 to 25, Metro Areas with High- versus Low-Scoring Public Schools for Average Black and Hispanic Students

	Income		Attained some college or higher education		Employed or in school	
	Blacks	Hispanic	Blacks	Hispanic	Blacks	Hispanic
Metro with high average test scores compared to metro with low average test score	$3,040	$3,619	9%	6%*	9%	12%

*The numbers displayed are the estimated marginal effect of living in a metro with test scores at the 88th percentile relative to test scores at the 38th percentile (37th percentile for Latinos), for the group in question. This difference reflects the range across the 100 largest metros for each group. These results are calculated from a regression analysis shown in the methods appendix (available on Brookings website), which controls for a number of individual and metro level variables. Source: Brookings analysis of data from GreatSchools, the Bureau of Labor Statistics, and the 2010 American Community Survey, accessed via IPUMS. *There is no significant correlation between test scores and post-secondary attainment for Latinos. Others results are significant below 0.05 level. Results are potentially biased, since young adults are not randomly assigned to metropolitan areas.*

attained a post-secondary education or being employed or enrolled. The results are similar for Latinos, except the effect on post-secondary attainment is not statistically significant. These findings suggest potentially large economic benefits for metros that improve minority access to high-scoring schools, but must be interpreted with caution, given the methodological limitations.[83]

C. Across the 100 largest metropolitan areas, housing costs an average of 2.4 times as much, or nearly $11,000 more per year, near a high-scoring public school than near a low-scoring public school.

The above sections demonstrate that access to high-scoring schools is vastly unequal across income and racial/ethnic groups, and across metropolitan areas due to differing demographic and economic characteristics and levels of segregation. At the same time, recent research supports the idea that higher-scoring schools benefit disadvantaged children, boosting their academic achievement and future labor market success. Parents intuitively understand this. Experimental evidence shows that the parents of disadvantaged students will try to enroll their children in higher-scoring schools—measured by test scores—when given salient information, especially when they live closer.[84] As this section and the next show, however, many local governments have laws that effectively block low-income students and their families from living near or attending these schools.

The effective price difference between housing in neighborhoods with high-scoring versus low-scoring schools provides initial evidence of these barriers. The *housing cost gap* measures the difference in median housing costs (rental or mortgage payments) between neighborhoods with the highest-scoring elementary schools and those with the lowest-scoring elementary schools on statewide exams. Across all 100 metropolitan areas, housing near the highest-scoring schools is 2.4 times as expensive as near the lowest-scoring schools; in dollar terms, that difference is $10,707. On average, median home values are $205,000 higher in the neighborhood near high-scoring schools.

Likewise, the size of homes and availability of rental units differ significantly in these neighborhoods. The median home near top-scoring schools has 1.5 additional rooms and the share of rental units is roughly 30 percentage points lower, compared to homes in the neighborhoods of low-scoring schools.

To put the average cost gap of nearly $11,000 in perspective, it can be compared to tuition at the average private school. According to the National Center for Education Statistics, during the 2007-2008 school year (the most recently available data) average private school tuition for elementary and secondary students was $8,549 nationwide, and for Catholic schools, average tuition was just over

Figure 3. Average Test Score Gap for Elementary Schools by Housing Cost Gap in the 100 Largest Metropolitan Areas

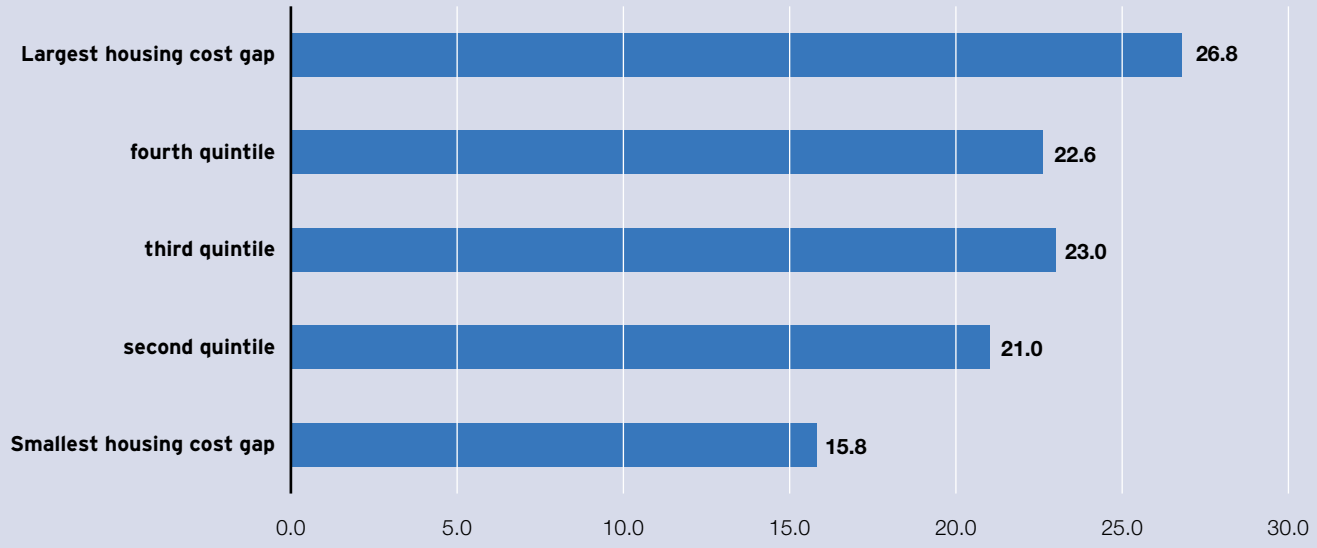

Source: Brookings analysis of data from GreatSchools, the National Center for Education Statistics, and the U.S. Census Bureau 2005-2009 American Community Survey. Data include the 100 largest metropolitan areas. X-axis is the school test-score gap between low-income and middle/high-income students (on a 1-100 scale). The housing cost gap, on the Y-axis, refers to the average housing costs in tracts of top-quintile scoring schools, divided by bottom-quintile scoring schools.

$6,000.[85] Moreover, in 78 out of 91 large metro areas for which data were available from the National Catholic Education Association, elementary Catholic school tuition for non-Catholic children was cheaper than the public school premium for high-scoring elementary schools (tuition is sometimes less expensive for Catholics or parish members).[86] In effect, housing costs may make high-scoring public schools as elusive to disadvantaged groups as typical private schools.

Regardless of the relative value of public versus private education, the housing-cost premium for top-scoring schools is strongly associated with the school test-score gap itself. In metro areas with the largest housing-cost gaps, low-income students attend schools that rank an average of 27 percentile points lower on test score performance than middle/high-income students (Figure 3). That compares to 16 percentile points in metro areas with the smallest housing-cost gaps.

Metro areas in the Northeast tend to have the highest housing-cost gaps and those in the South and West tend to have the smallest. Metropolitan Bridgeport, Philadelphia, New York City, Buffalo, and Hartford are among the ten metro areas with the largest housing cost gaps, and each of the ten has a larger-than-average elementary school test score gap between low-income and middle/high-income students (Table 5). In Bridgeport, the most extreme case, it is 3.5 times more expensive to live near a high-scoring school as a low-scoring school; would-be movers would have to spend about $25,000 more per year on housing to make that jump. In all nine metro areas for which data are available, as many as two children from a family living near a low-scoring school could attend the average Catholic school for less than the additional housing costs the family would bear in moving to a neighborhood near a high-scoring school. By contrast, in metro areas such as Boise, Little Rock, Lakeland, Madison, Modesto, and Provo, there are fairly low housing-cost gaps, and all are roughly equal to or lower than

Table 5. Largest and Smallest Housing-Cost Gap, and Corresponding Elementary School Test-Score Gap, 100 Largest Metropolitan Areas

	Housing cost gap	Housing cost difference	Elementary School test- score gap	Average Catholic school tuition
Large metropolitan areas with largest housing cost gap				
Bridgeport-Stamford-Norwalk, CT	3.5	$25,038	37.6	$7,434
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3.5	$14,285	32.9	$4,448
Columbus, OH	3.3	$12,847	27.3	$4,997
Fresno, CA	3.2	$11,331	28.6	
New York-Northern New Jersey-Long Island, NY-NJ-PA	3.1	$15,696	28.9	$5,109
Baltimore-Towson, MD	3.0	$13,181	33.2	$6,082
Buffalo-Niagara Falls, NY	2.9	$8,172	33.2	$3,823
Cleveland-Elyria-Mentor, OH	2.9	$9,596	32.0	$3,454
Los Angeles-Long Beach-Santa Ana, CA	2.8	$15,641	33.3	$4,510
Hartford-West Hartford-East Hartford, CT	2.8	$12,375	37.8	$4,391
Large metropolitan areas with smallest housing cost gap				
Ogden-Clearfield, UT	1.6	$5,684	18.6	$5,434
Palm Bay-Melbourne-Titusville, FL	1.5	$4,505	23.8	$6,332
Lakeland-Winter Haven, FL	1.5	$3,253	19.1	$6,000
Honolulu, HI	1.5	$5,253	19.8	$6,260
Salt Lake City, UT	1.5	$4,921	26.2	$6,250
Provo-Orem, UT	1.4	$4,241	14.1	
Little Rock-North Little Rock-Conway, AR	1.4	$2,241	23.1	$4,816
Madison, WI	1.3	$3,770	18.8	$4,400
Modesto, CA	1.3	$3,070	19.3	
Boise City-Nampa, ID	1.3	$2,327	15.1	$4,390
Unweighted average of largest 100 MSAs	**2.2**	**$8,410**	**26.0**	**$5,446**

Source: Brookings analysis of data from the U.S. Census Bureau's 2005-2009 American Community Survey, GreatSchools, Texas Education Agency, National Center for Education Statistics, and the National Catholic Education Association. The housing cost gap and test score gap are for elementary schools.

Catholic school tuition. Finally, the school test-score gaps are roughly at or below average for all ten.

D. Large metro areas with the least restrictive zoning have housing cost gaps that are 40 to 63 percentage points lower than metro areas with the most exclusionary zoning. Affluent residents of major metropolitan areas often live in municipal jurisdictions or zoning districts (homogenously zoned areas within a jurisdiction) that discourage or directly prevent the development of inexpensive housing units. While this may allow for lower tax rates and more stable housing prices, it sets up a major barrier to entry for low-income residents who might wish to send their children to schools in that area.[87]

Data from the Wharton survey indicate that 84 percent of jurisdictions impose minimum lot size requirements of some kind (the average jurisdiction with zoning power has a minimum lot size of 0.4 acres), and 22 percent of jurisdictions have laws forbidding housing units on lots smaller than one acre.[88] Data from the 2009 American Housing Survey show that the median single-family housing unit nationwide sits on 0.26 acres, and only 29 percent of housing units are on lots larger than one acre.[89] In other words, zoning laws, on average, prohibit even today's typical single-family home from being built.

Metropolitan data

Zoning regimes contribute to the cost gap within metro areas between housing in neighborhoods with high- versus low-scoring schools. Comparing the top and bottom quartiles of regulation, more restrictive zoning is associated with a nearly 40 percentage point increase in the metropolitan housing-cost gap. This result holds using either data from the Pendall survey of 49 large metropolitan areas or the zoning law firm index for all of the 100 largest metro areas (Figure 4).

Figure 4. The Housing Cost Gap by Prevalence of Zoning Laws in the 100 Largest Metropolitan Areas

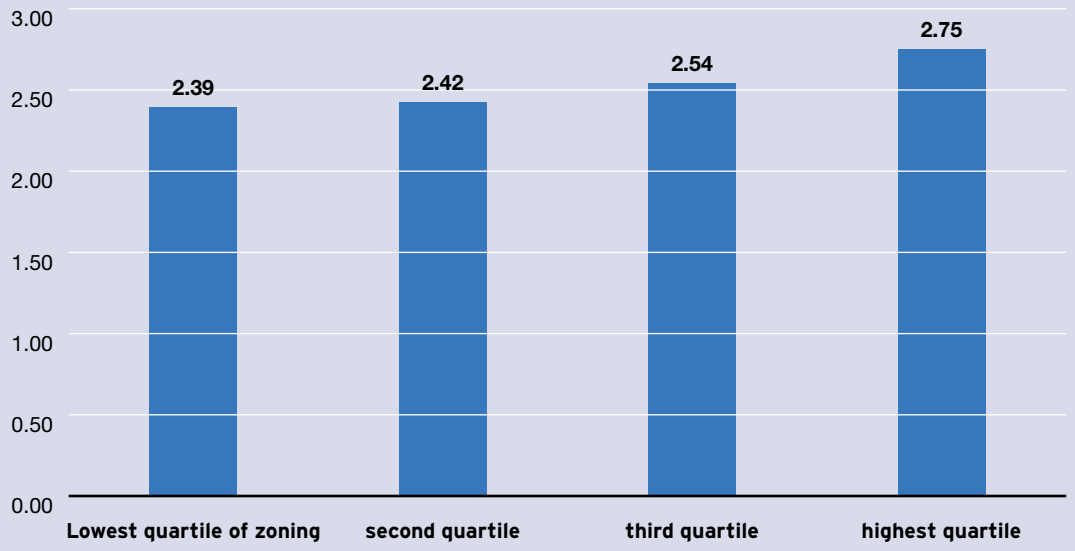

Source: Brookings analysis of data from the U.S. Census Bureau's 2005-09 American Community Survey, GreatSchools, National Center for Education Statistics, and Lawyers.com. MSAs are weighted by 2010 population in calculating averages.

At the metropolitan level, school test-score gaps, housing-cost gaps, and restrictive zoning all relate to one another. In the 100 largest metro areas, those metro areas with the largest housing-cost gaps exhibit school test-score gaps that are 12.7 percentage points higher, on average, than in metro areas with the smallest housing-cost gaps (Table 6). In turn, zoning is significantly more restrictive in the high housing-cost gap metro areas–by 17 percentile points in the state-based zoning law-firm index and a larger margin using the Pendall survey of anti-density zoning (where data is available). While zoning clearly does not explain all of the variation in the housing-cost gap across metro areas—the California metros, for example—the relationship is strong and statistically significant, and thus deserves greater attention as a source of inequality in access to high-scoring schools.[90]

Table 6. Housing Cost Gap, Elementary Test Score Gap, and Zoning in the 100 Largest Metropolitan Areas

Metropolitan Area	Housing Cost Gap	School test-score gap	Zoning law firm index (1-100)	Anti-density zoning restrictions (1-100)
Large metros with the largest housing price premium near top-quintile schools				
Bridgeport-Stamford-Norwalk, CT	3.5	37.6	98	
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3.5	32.9	93	76
Columbus, OH	3.3	27.3	67	86
Fresno, CA	3.2	28.6	10	
New York-Northern New Jersey-Long Island, NY-NJ-PA	3.1	28.9	84	74
Baltimore-Towson, MD	3.0	33.2	63	
Buffalo-Niagara Falls, NY	2.9	33.2	75	98
Cleveland-Elyria-Mentor, OH	2.9	32.0	66	80
Los Angeles-Long Beach-Santa Ana, CA	2.8	33.3	9	11
Hartford-West Hartford-East Hartford, CT	2.8	37.8	98	94
Average for group	**3.1**	**32.5**	**66**	**74**
Large metros with the smallest housing price premium near top-quintile schools				
Ogden-Clearfield, UT	1.6	18.6	59	
Palm Bay-Melbourne-Titusville, FL	1.5	23.8	34	
Lakeland-Winter Haven, FL	1.5	19.1	34	
Honolulu, HI	1.5	19.8	79	
Salt Lake City, UT	1.5	26.2	59	27
Provo-Orem, UT	1.4	14.1	58	
Little Rock-North Little Rock-Conway, AR	1.4	23.1	6	
Madison, WI	1.3	18.8	62	
Modesto, CA	1.3	19.3	10	
Boise City-Nampa, ID	1.3	15.1	95	
Average for group	**1.4**	**19.8**	**50**	**27**
Unweighted average for 100 largest metros	**2.2**	**26.0**	**49**	**49**

Source: Brookings analysis of data from GreatSchools, the U.S. Census Bureau, the NCES, lawyers.com, and Pendall zoning database. Anti-density zoning index is only available for the 49 metros surveyed by the Pendall database. The zoning law firm index is measured for the metro area's state.

These data point to a significant "price" that restrictive zoning imposes in terms of housing costs and limiting access to high-scoring schools. If a metro area with extremely high scores on the Pendall anti-density zoning index like Buffalo or Boston had years ago adopted the more relaxed zoning laws of metro areas like San Diego or Portland, their estimated housing-cost gaps could be 63 percentage points lower today (which is more than one standard deviation). The estimate is similar but slightly smaller using the state zoning law firm index in a sample of all 100 metro areas, at 40 percentage points. That magnitude reduction in the housing-cost gap is associated with a 7.4 percentile-point narrowing of the school test-score gap between low-income and middle/high-income students for all schools, or 3.6 percentile points for elementary schools.[91]

To be sure, these hypothetical changes in zoning would not lead to an immediate boom in high-density, affordable housing in affluent neighborhoods. The association between zoning and housing has developed over decades. One can imagine new high-priced condos being built soon after a zoning change in a high-income neighborhood, but it often takes decades for housing to age long enough to become affordable for the poor.[92] In addition, these results do not take into account the potential for whites (or affluent people from any race) to move away in response to integration; recent research does imply that whites have responded negatively to school integration (by moving) when forced

through busing.[93] Yet Easterly finds that the share of whites living in neighborhoods stabilizes at moderate levels of diversity, suggesting that zoning changes could give disadvantaged groups longer-run access to higher-scoring schools than previous research may have suggested.[94]

Local level data

Recent surveys of land use regulation have established what the previous literature from the 1970s argued but rarely could prove nationally with adequate data. Exclusionary zoning laws work, in so far as they are designed to keep housing costs high, and the jurisdictions that use them the most aggressively have the following characteristics: 1) They have residents with relatively high incomes; 2) They have low population densities, implying that there is open space for potential development; 3) They have high home ownership rates, implying that there are fewer rental units available.[95]

These local zoning laws have implications for low-income and minority student access to high-scoring elementary schools. Table 7 reports the characteristics of 925 local jurisdictions in the Wharton land use survey, classified by the restrictiveness of their zoning. In the least regulated jurisdictions, relative to metropolitan averages, test scores and the shares of students that are low-income and black/Hispanics are similar, and annual housing costs are slightly cheaper. By contrast, in the most exclusionary jurisdictions, public elementary schools are ranked 16 percentage points higher on standardized state test scores than the metropolitan average; annual costs of renting a home or paying a mortgage are almost $4,000 higher; and disadvantaged students—whether low-income, black, or Hispanic—are under-represented by 17 or 18 percentage points.

Table 7. Housing and School Indicators by Level of Local Government Zoning Restrictions, 925 Jurisdictions in 100 Largest Metropolitan Areas

	Neighborhood housing costs in town relative to MSA	Town's elementary school test scores percentile relative to MSA	Percentage of elementary school students in poverty relative to MSA	Percentage of elementary school students who are black or Hispanic relative to MSA
Least exclusionary quintile of zoning	-$189	-0.1	0%	-4%
second quintile	$527	3.7	-4%	-9%
third quintile	$1,698	9.6	-10%	-12%
fourth quintile	$1,680	9.3	-9%	-13%
Most exclusionary quintile of zoning	$3,749	16.4	-17%	-18%

Source: Brookings analysis of data from Wharton zoning survey, GreatSchools, and U.S. Census Bureau. School test scores refer to the share of students at or above proficiency. Zoning is based on 925 local government observations in the 100 largest metropolitan areas. The zoning components analyzed include minimum lot size (in acres), and planner-reported answers to the question: how important are density restrictions on single and multi-family housing on a 1-5 scale. Poverty is defined as eligibility for free or reduced price lunch.

Table 8. Housing and Elementary School Characteristics, Towns with Most and Least Restrictive Zoning in Eastern Massachusetts

Town	County	Zoning restrictions on inexpensive housing (1-100 scale)	Percentile rank of average elementary school	Annual housing costs near schools	Low income share of elementary students	Black or Hispanic share of elementary students
Towns with most restrictions on inexpensive housing						
Sherborn	Middlesex County (MA)	100	94.0	$33,642	3%	3%
Lancaster	Worcester County (MA)	100	55.0	$17,758	16%	6%
Groton	Middlesex County (MA)	100	66.0	$25,523	2%	2%
Sudbury	Middlesex County (MA)	99	97.1	$31,060	3%	3%
Weston	Middlesex County (MA)	99	76.3	$33,918	5%	10%
Upton	Worcester County (MA)	98	51.0	$25,246	5%	3%
Bolton	Worcester County (MA)	98	92.0	$27,668	3%	2%
Tyngsborough	Middlesex County (MA)	98	52.0	$22,176	7%	4%
Dracut	Middlesex County (MA)	96	37.5	$13,543	16%	9%
Middleborough	Plymouth County (MA)	96	28.0	$13,988	27%	6%
Norfolk	Norfolk County (MA)	96	86.0	$24,924	4%	1%
Stow	Middlesex County (MA)	96	86.6	$26,295	3%	3%
Townsend	Middlesex County (MA)	96	33.0	$17,242	17%	3%
Group Average		**98**	**65.7**	**$24,076**	**9%**	**4%**
Towns with least restrictions on inexpensive housing						
Waltham	Middlesex County (MA)	16	31.9	$12,899	28%	38%
Hull	Plymouth County (MA)	15	46.0	$16,220	26%	1%
Revere	Suffolk County (MA)	9	30.4	$11,965	72%	45%
Worcester	Worcester County (MA)	9	18.2	$9,373	70%	52%
Lynn	Essex County (MA)	7	18.0	$11,666	79%	62%
Lawrence	Essex County (MA)	4	16.9	$7,023	88%	92%
Chelsea	Suffolk County (MA)	3	16.3	$8,320	94%	90%
Malden	Middlesex County (MA)	1	29.0	$12,984	51%	35%
Medford	Middlesex County (MA)	1	27.4	$12,784	31%	25%
Everett	Middlesex County (MA)	1	15.8	$10,187	72%	47%
Group Average		**7**	**25.0**	**$11,342**	**61%**	**49%**
Average for all towns in Eastern Massachusetts		**58**	**58.8**	**$19,443**	**17%**	**10%**

Source: Brookings analysis of data from GreatSchools, the National Center for Education Statistics, the U.S. Census Bureau, and the Massachusetts Housing Regulation Database. Housing costs refer to the average median housing costs in the census tracts near elementary schools, and may differ from broader measure of costs for the town. For 177 towns with complete data. Schools are ranked against all schools in the sample.

Many of the jurisdictions in the Wharton survey with highly exclusionary zoning have extremely expensive housing relative to the metropolitan average. These include: Wrightstown and Chads Ford in the Philadelphia suburbs; Ardsley in Westchester County, NY; Oakland in the Detroit suburbs; Fairfield in the Bridgeport region; Fairport east of Rochester, NY; Pearland outside of Houston; Lakeland near Memphis; and Solon outside of Cleveland. The shares of disadvantaged students enrolled in their schools are much lower, and school test scores much higher, than metropolitan averages. In many respects, these jurisdictions are the mirror image of their nearby central cities, which bear disproportionate burden for housing their regions' poor families and educating their children.

Data from the Boston region, described in the Methodology section, provide further evidence on the strong relationship between municipal zoning regulations, housing costs, and access to high-scoring schools. Massive differences exist in test scores, housing costs, and demographics between Eastern

Massachusetts towns that practice exclusionary zoning and those that do not (Table 8). On average, elementary school test scores are at the 66th percentile in the most restrictive group of jurisdictions, and at the 25th percentile in the least restrictive group of jurisdictions. Student populations are also radically different. Just 9 percent of elementary school students in the average highly restrictive town are low-income, compared to 61 percent in the least restrictive areas, and housing costs are almost $13,000 more per year where zoning is more restrictive.[96] Thus, it would be much more expensive to move from the jurisdictions in the bottom panel to those in the top panel than to pay tuition at the average Catholic school in the Boston metro area, which is just $4,477 per year for non-Catholics.[97]

More rigorous regression analysis confirms that these differences are statistically significant in the full sample, even controlling for the town's metropolitan location (centered on Boston, Providence, or Worcester). Higher priced areas have better test scores and fewer disadvantaged students, and these associations remain significant when zoning is used to predict housing prices.[98]

Discussion and Conclusion

This analysis documents that the average schools attended by low-income students, black students, and Hispanic students register much lower scores on state standardized exams than average schools attended by middle/high-income and white students. In light of mounting evidence that disadvantaged students perform better when they attend school with higher-performing peers, and that young minority adults do better in labor markets with more integrated schools, the school test-score gap may very well represent a serious obstacle to boosting student achievement and promoting economic security.

Access to high-scoring schools is unequal by income and race because that access is constrained by housing availability and cost. The housing-cost gaps between neighborhoods with high-scoring and low-scoring schools revealed here confirm that it is financially impossible for many working-poor families to access high-scoring schools in the absence of lottery systems or other aggressive district efforts to integrate schools. For many families, it would be cheaper to send a child to a parochial or even more expensive private school than to move into the attendance zone of a high-scoring school.

This report also looks behind the housing-cost gap to examine why neighborhoods remain segregated by race and income and how that impedes broader access to good schools. Discriminatory zoning that forbids the construction or use of inexpensive housing in affluent neighborhoods is still widespread in metropolitan America. Just as explicitly race-based policies like covenants and discriminatory lending and real estate standards contravened market forces to keep blacks out of white neighborhoods, zoning today keeps poor people out of rich neighborhoods, and accounts for a significant portion of the school test-score gap between low-income and other children.

The issue of school inequality is linked, of course, to overall economic inequality. Children of less-educated parents miss out on important familial advantages and they are less likely to attend high-scoring public schools because their parents cannot afford to live near high-scoring public schools or pay private school tuition. Public policies that foster the growth of jobs that are disproportionately available to less educated workers and pay decent wages—like in production, construction, installation, and transportation—could erase some of this educational disadvantage.[99]

There are also more direct ways to promote school integration by income and race. States and school districts across the country are experimenting with a number of different strategies. For a thorough review of policies designed to explicitly promote integration see Richard Kahlenberg's recent paper on efforts to promote integration through "controlled choice."[100] Take one promising plan in which the Cambridge, MA school district treats every school as a magnet school. Parents then list their top school choices for their children, and the district creates an assignment formula that maximizes parental choice while insuring that schools are at least somewhat balanced in terms of their distribution of low-income students.[101]

Other approaches seek to expand school choice for low-income students through charter schools, school vouchers, or the elimination of attendance boundaries. The National Alliance for Public Charter Schools reports that over 2 million students were enrolled in charter schools as of the 2010-2011 school year, and only nine state have no laws authorizing charter schools.[102] Some recent research

finds that increasing school attendance options for middle/high income students through charters can lead to increased racial or economic segregation.[103]

As many as 27 private voucher programs are run by philanthropic organizations around the country paying tuition for an estimated 210,000 disadvantaged students.[104] In Louisville, for example, School Choice Scholarships pays for a few hundred poor students to attend private schools.[105] Likewise, the public sector also provides vouchers to attend private schools in some states, like Wisconsin, through the Milwaukee Parental Choice Program, and the federal government provides scholarships to poor DC residents, through the Opportunity Scholarships Program.[106]

A more sweeping proposal has been put forth recently to combine the above reforms with increased choice within the traditional public school system. Led by the federal government, school funding could be linked to individual children rather than schools, such that a child could apply to multiple public schools in his or her area.[107]

Another set of reform ideas focus on administrative issues like mayoral control of school systems or teacher incentives. In some areas like Washington, DC and New Haven, CT, union leaders have worked with reformers to link teacher pay, promotion, and retention decisions with objective performance measures, with the goal of improving the quality of under-performing schools.

All of these reform strategies have one thing in common: They try to improve disadvantaged students' access to high-performing schools through education policy. These reform ideas certainly have merit and should be carefully evaluated and considered, but they do not address one very important mechanism that sorts poor students into the lowest-scoring schools: housing policy. Housing and education policies should work together to promote access to improved school environments for low-income and minority children.[108]

The most ambitious and consequential policy reform along these lines would be to eliminate exclusionary zoning altogether. In an ideal world, the federal government or states would forbid local governments from discriminating based on housing type (e.g. single-family attached or multi-family) or size (lot, floor, or frontage size). They could even agree to compensate jurisdictions for any disproportionate increases in local expenditures that resulted from higher density or lower-income development. Eliminating exclusionary zoning laws could produce large educational and economic benefits for low-income and minority children and families, and the U.S. economy as a whole. Unfortunately, the likelihood of such a reform, however market-oriented it may be, seems low at this time.

In the absence of aggressive federal or state action of that kind, modest but meaningful policy options exist to promote disadvantaged families' access to better neighborhoods and schools. One policy mechanism to increase residential, and thereby school, integration is expanded portability of housing vouchers. Recent research from Brookings has shown that vouchers help poor families live in less poor and more job-rich neighborhoods.[109] Yet, as the MTO experiment showed, vouchers often fall short of promoting economic and racial integration, especially in an otherwise segregated metropolitan area where many affluent suburbs do not even allow rental housing. This report's results indicate that in many metro areas, vouchers would have to be very generous to cover the large price premium for living in neighborhoods near top-performing schools.

State and local governments are also experimenting with several tools to increase economic integration through housing and land use policies. The Center for Housing Policy provides many examples. One is to create enforceable "rights" to develop affordable housing in towns that are not providing their fair share.[110] As used by New Jersey, Massachusetts, and New Hampshire, this allows developers to challenge denials in court in an expedited manner. California obligates municipalities to include planning for affordable housing in their zoning laws. At the local level, cities or towns can mandate that new construction include a certain share of affordable units or, as in New York, developers can be rewarded with a "density bonus," if they include more affordable units.[111]

Unfortunately, inclusionary zoning and various other pro-affordable housing policies must co-exist with more powerful and sweeping laws that block affordable housing (or even future inexpensive housing) where it is most needed. So long as homeowners living in affluent suburbs can continue to benefit from the density of cities (where they often work or find business relations), without accepting the higher costs of public services to support it, they will continue to block the construction of inexpensive housing in their jurisdictions.

At the regional scale, improved zoning coordination could be used to promote higher density where it makes sense. That is, for some metros, currently low-dense areas may be conveniently located near job centers or existing public transit routes, and thus, the region would benefit by allowing more people to live there. Portland, Oregon has taken such a regional approach to planning by limiting developments in outer suburbs. This is one of the reasons why segregation has fallen in Portland, according to a recent study, and may partly account for its low test score gap observed here.[112] However, there is no evidence that Portland's specific "containment" regulations yield better results than simply allowing market forces to allocate high-density development.

To conclude, across the private, non-profit, and public sectors, there are many compelling efforts to improve the quality of education available to low-income children. In documenting the tight link between housing costs and access to high-scoring schools, this report illustrates the scale of the challenge, and yet, it also shows that reforms to housing and land use policy could have potentially large benefits to the nation's future by making educational opportunity more equal.

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75. Data from 1998 (the earliest available on the NCES website) to 2010 show that even as black students became slightly less racially, their exposure to poor students increased from 44 percent to 53 percent. In fact, all groups of students except Asians saw an increase in exposure to the poor, including poor (free lunch eligible students).

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80. Indeed, even adding the cost of living near the school and the size of the average house near the school does not significantly change the result, though doing so reduces the implied effect to 0.5 percentage points. Results are available upon request. The analysis uses roughly 38,000 schools where data were available. The author thanks Matthew Chingos for suggesting that housing costs be added to the regression to proxy for parental advantage.

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91. The standard deviation across all metros on the test score gap is 7.7 (for both elementary and all schools), so the zoning effect is equal to roughly one half to one standard deviation. This part of the analysis uses zoning as an instrumental variable for the housing premium for top-performing schools to estimate the premium's "causal" effect on school inequality. For this to be valid, zoning must significantly predict the housing premium and have no effect on school inequality except through the housing premium—that is through housing segregation. The methods appendix describes the analysis conducted for these results in more detail. These results do not prove that zoning causes prices changes, and that these changes cause larger gaps in school quality. To do that, one would need a natural experiment, in which towns were randomly assigned zoning laws. To simulate such an experiment with limited data is very difficult, but as the appendix relates, year of statehood and the degree to which the metropolitan area has rural settlements are both factors that are highly correlated with zoning. In so far as using these measures to assign zoning to metropolitan areas is random with respect to home prices, the analysis suggests a causal link. See appendix for discussion.

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Acknowledgments

The Metropolitan Policy Program at Brookings thanks the Ford Foundation for its generous support of the program's research on city and suburban poverty and opportunity, the Annie E. Casey Foundation for its support of the program's research on low-income working families, and the John D. and Catherine T. MacArthur Foundation, the George Gund Foundation, the F.B. Heron Foundation, and the Heinz Endowments for their general support of the program, as well as the members of the Metropolitan Leadership Council.

For helpful comments on earlier drafts, the author would like to thank Matthew Chingos, Matthew Steinberg, Martha Ross, John Logan, Elizabeth Kneebone, Richard Kahlenberg, Douglas Massey, Jacob Rugh, and Alan Berube, as well as Nicole Prchal Svajlenka for research assistance. Data on Catholic school enrollment was graciously provided by the National Catholic Educational Association, with thanks to Robert A. Bimonte, Dale McDonald, and Melissa Cidade. Alan Berube deserves credit for conceptualizing the method used in the paper to create hypothetical assignment zones, and Nicole Prchal Svajlenka executed the painstaking work to identify every census tract within 10 miles of every public school using ArcGIS software. Alan Berube and David Jackson provided editing. Finally, the author thanks Christopher Ingraham for creating the web graphics and profiles.

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Prevention of Childhood Lead Toxicity

COUNCIL ON ENVIRONMENTAL HEALTH

abstract

Blood lead concentrations have decreased dramatically in US children over the past 4 decades, but too many children still live in housing with deteriorated lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 μg/dL (50 ppb), impair cognition; there is no identified threshold or safe level of lead in blood. From 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration ≥5 μg/dL (≥50 ppb), which represents about 535 000 US children 1 to 5 years of age. Evidence-based guidance is available for managing increased lead exposure in children, and reducing sources of lead in the environment, including lead in housing, soil, water, and consumer products, has been shown to be cost-beneficial. Primary prevention should be the focus of policy on childhood lead toxicity.

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DOI: 10.1542/peds.2016-1493

Accepted for publication May 5, 2016

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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FINANCIAL DISCLOSURE: The author has indicated he does not have a financial relationship relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The author has indicated he has no potential conflicts of interest to disclose.

To cite: AAP COUNCIL ON ENVIRONMENTAL HEALTH. Prevention of Childhood Lead Toxicity. *Pediatrics*. 2016;138(1):e20161493

OVERVIEW AND INTRODUCTION

Primary prevention, reducing or eliminating the myriad sources of lead in the environment of children before exposure occurs, is the most reliable and cost-effective measure to protect children from lead toxicity. Very high blood lead concentrations (eg, >100 μg/dL) can cause significant overt symptoms, such as protracted vomiting and encephalopathy, and even death. Low-level lead exposure, even at blood lead concentrations below 5 μg/dL (50 ppb), is a causal risk factor for diminished intellectual and academic abilities, higher rates of neurobehavioral disorders such as hyperactivity and attention deficits, and lower birth weight in children. No effective treatments ameliorate the permanent developmental effects of lead toxicity. Reducing lead exposure from residential lead hazards, industrial sources, contaminated foods or water, and other consumer products is an effective way to prevent or control childhood lead exposure. Lead poisoning prevention education directed at hand-washing or dust control fails to reduce children's blood lead concentrations. However, pediatricians and parents should be aware of measures to reduce the toxic effects of lead on children, including the promulgation of regulations to screen or test older housing units for lead hazards

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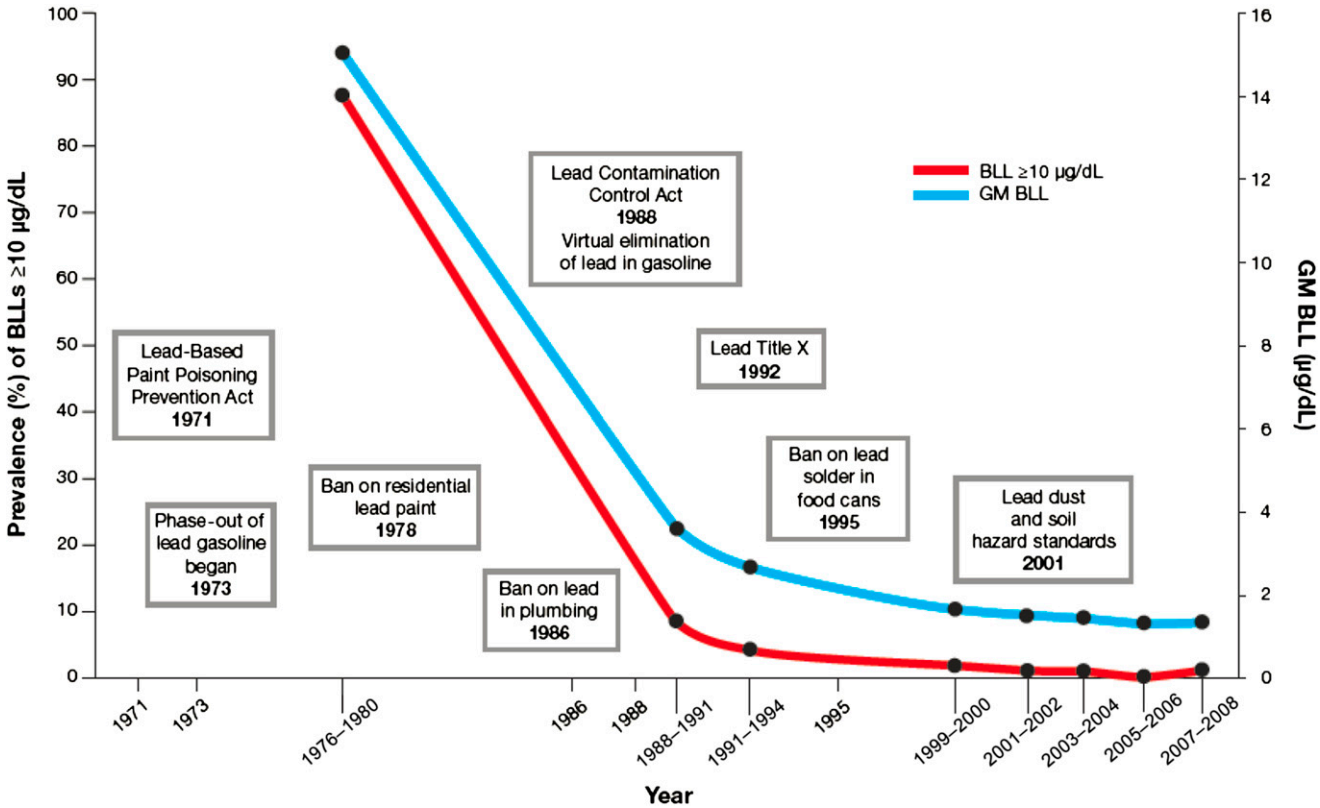

FIGURE 1
Timeline of lead poisoning prevention policies and blood lead levels in children aged 1–5 years, by year—NHANES, United States, 1971–2008. BLL, blood lead level; GM BLL, geometric mean blood lead level. Adapted from Brown et al.[1]

before occupancy and after major renovation and abatement; revision of federal standards to reduce allowable levels of lead in settled house dust, water, soil, cosmetics, and other consumer products; and enhanced protection for children who live in lead-contaminated communities or near lead-emitting industries.

SCOPE OF THE PROBLEM

Over the past 4 decades, blood lead concentrations among US children have declined dramatically since the elimination of lead from gasoline, paints, and other consumer products[1] (Fig 1, Table 1). From 1976 to 1980, blood lead concentrations among US children declined more sharply than anticipated after the phase-out of leaded gasoline.[2] In 1978, the US Consumer Product Safety Commission (CPSC) restricted the allowable content of lead in residential paint to 0.06% (600 ppm); in 2008, it was lowered to 0.009% (90 ppm).[3,4] There have also been significant reductions in tap water lead concentrations since the US Environmental Protection Agency (EPA) promulgated the Lead and Copper Rule.[5,6] Finally, use of lead solder in canned foods and other consumer products was banned. It is difficult to accurately apportion the decline in blood lead concentrations to specific sources, but the combined effect of these regulations clearly led to the dramatic reductions in children's blood lead concentrations.[1] The key to preventing lead toxicity in children is to reduce or eliminate persistent sources of lead exposure in their environment.

Prevention of low-level lead toxicity has historically focused on anticipatory guidance, screening children's blood for lead after exposure, and iron or calcium supplementation to reduce lead absorption.[7] Unfortunately, studies that evaluated the efficacy of parent education or provision of cleaning equipment to families failed to show significant reductions in children's blood lead concentrations.[8] Similarly, calcium and iron supplementation have not consistently been shown to be efficacious in reducing blood lead concentrations of children.[9,10] Collectively, these studies indicate that the focus of prevention should be on reducing the sources of childhood lead exposures rather than identifying children who have already been unduly exposed or attempting to ameliorate the toxic effects of lead exposure.

In 2005, the American Academy of Pediatrics (AAP) recognized that blood lead concentrations below 10 µg/dL (100 ppb) may impair cognition; no threshold for the

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toxic effects of lead was identified.[7] The AAP adopted a blood lead concentration >10 μg/dL (>100 ppb) as the "level of concern" recommended by the Centers for Disease Control and Prevention (CDC), which indicated the need for closer medical and public health management.[7] Extensive and compelling evidence now indicates that lead-associated cognitive deficits and behavioral problems can occur at blood lead concentrations below 5 μg/dL (50 ppb). In 2012, the US National Toxicology Program of the National Institutes of Health reported that, after other risk factors are accounted for, blood lead concentrations <5 μg/dL (<50 ppb) are strongly associated with intellectual deficits, diminished academic abilities, attention deficits, and problem behaviors (Table 2).[11] In that same year, the Advisory Committee on Childhood Lead Poisoning Prevention of the CDC concluded that there is no safe level of lead exposure and adopted the use of a reference value of ≥5 μg/dL (≥50 ppb) (based on the 97.5th percentile of blood lead concentrations from the National Health and Nutrition Examination Survey [NHANES]) to be used as a trigger to guide clinical and public health interventions.[12]

Low-level elevations in children's blood lead concentrations, even at concentrations below 5 μg/dL (50 ppb), can result in decrements in cognitive functions, as measured by IQ scores and academic performance.[13,14] For a given level of exposure, lead-associated IQ decrements are proportionately greater at the lowest blood lead concentrations. The IQ decrement associated with an increase in blood lead concentration from <1 μg/dL (<10 ppb) to 30 μg/dL (300 ppb) was 9.2 IQ points, but the decrement associated with an increase in blood lead concentration from <1 μg/dL (<10 ppb) to 10 μg/dL (100 ppb) was 6.2 IQ points.[14] The population impact of lead on intellectual abilities is substantial. Despite the dramatic reductions in blood lead levels, lead toxicity accounts for an estimated total loss of 23 million IQ points among a 6-year cohort of contemporary US children.[15]

Focusing efforts on children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) is efficient but will fail to preserve the majority of lost IQ points in US children. The *prevention paradox* refers to the concept that most disease or disability occurs in low- to moderate-risk groups. Children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) will, on average, experience

TABLE 1 Federal Lead Poisoning Prevention Policies

Policy or Legislation	Year	Comment
Lead Based Paint Poisoning Prevention Act	1971	First major lead-based paint legislation; addressed lead-based paint in federal housing.
Phase Out Lead in Gasoline	1973	US EPA regulated a phase-out of lead in gasoline.
Ban on Residential Paint	1978	CPSC banned lead paint in residential properties.
Safe Drinking Water Act	1986	US EPA banned use of lead pipes and lead solder in plumbing.
Housing and Community Development Act	1987	Highlighted the danger to children of lead-contaminated dust.
Lead Contamination Control Act	1988	Authorized CDC to make grants to state and local programs to screen children and to provide for education about lead poisoning.
Residential Lead-Based Paint Hazard Reduction Act, Title X	1992	Established primary prevention of lead poisoning as a national strategy.
Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing	1995, 2012	HUD established guidelines for evaluating and controlling residential lead-based paint hazards.
Ban Lead Solder in Food Cans	1995	FDA amended food additive regulations to ban lead solder from food cans.
Lead Safe Housing Rule	1999, 2012	Regulation issued by HUD setting forth new requirements for lead-based paint notification, evaluation, and remediation.
Hazard Standards for Lead in Paint, Dust and Soil	2001	US EPA established a definition of a lead-based paint hazard and standards for paint, dust, and soil in children's play areas.
Consumer Product Safety Improvement Act	2008	CPSC lowered the cap on lead in paint from 0.06% to 0.0009% and incorporated the Lead-Free Toy Act, setting limit on lead content in toys.
Lead Renovation, Repair and Paint Rule	2010	US EPA required contractors working on homes built before 1978 to be certified and follow lead safe guidelines.

TABLE 2 Effects of Low-Level Lead Exposure on Academic and Intellectual Abilities, Puberty, Kidney Function, Postnatal Growth, Hearing, and Other Health Endpoints

Blood Lead Concentration	Evidence Level	Health Effect
<5 μg/dL	Sufficient	Decreased academic achievement
		Lower IQ scores
		Attention-related behavior problems
		Antisocial behaviors
	Limited	Delayed puberty
		Decreased kidney function in children ≥12 y of age
<10 μg/dL	Sufficient	Delayed puberty
		Reduced postnatal growth
		Decreased hearing
	Limited	Hypersensitivity by skin prick test
	Inadequate	Asthma and eczema
		Cardiovascular effects
		Kidney function <12 y of age

From the US Department of Health and Human Services, National Institute of Environmental Health Sciences, 2012.

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a lead-associated IQ deficit of 6.1 points, an IQ deficit much larger than that of children who have lower blood lead concentrations (Fig 2). Still, if the focus is only on reducing exposures for children who have a blood lead concentration ≥5 μg/dL (≥50 ppb), we will fail to preserve more than 20 million (>80% of total) of the 23 million IQ points lost among US children with lower lead exposure because there are so many more children who have low to moderate blood lead concentrations (Fig 2). No therapeutic interventions currently exist for low blood lead concentrations; therefore, prevention of exposure is paramount. For these reasons, this statement focuses heavily on how pediatricians can help *prevent* lead exposure in children.

Elevated blood lead concentrations can result in the development of behavioral problems in children, including inattention, impulsivity, aggression, and hyperactivity.[16–18] In a nationally representative study of 8- to 15-year-old US children, Froehlich et al[17] found that having a blood lead concentration >1.3 μg/dL (>13 ppb) was associated with an elevated risk for attention-deficit/hyperactivity disorder (ADHD). Children with a blood lead concentration in the lowest tertile (<0.7 μg/dL, or <7 ppb) exhibited, on average, 1 symptom of ADHD, whereas children with a blood lead concentration in the highest tertile (>1.3 μg/dL, or >13 ppb) exhibited 3 symptoms. Some critics have argued that these "subtle" shifts in behavioral symptoms are inconsequential, but this shift in the population distribution of ADHD symptoms led to an increase in the percentage of children who met criteria for ADHD from 5% to 13%. Approximately 1 in 5 cases of ADHD among US children have been attributed to lead exposure.[17]

Antisocial behaviors, including conduct disorder, delinquency, and criminal behaviors, can result from

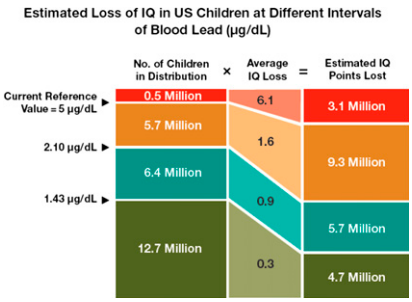

FIGURE 2
Prevention paradox. The majority of IQ points lost due to lead exposure occur in children who have low to moderate blood lead levels. Using the current reference value of 5 μg/dL, we will protect only 3.1 million IQ points (about 13% of the total). Adapted from Bellinger.[15]

a variety of risk factors, but there is substantial evidence that lead toxicity is 1 of the major risk factors for their development.[16,19–22] Needleman et al[16] found that adolescents who had higher bone lead concentrations had higher scores for delinquency and aggression. In a meta-analysis of 16 studies, Marcus et al[22] concluded that lead exposure, measured via blood lead or bone lead concentrations, was a risk factor for conduct disorder. In 2 prospective longitudinal studies, higher childhood blood lead or tooth lead concentrations resulted in higher rates of self-reported delinquent behaviors and arrests or convictions.[20,21] Reyes[23] concluded that the reduction in population mean blood lead concentrations was the major risk factor associated with the decline in severe violent behaviors over the past 3 decades.

Limited evidence implicates lead exposure in diminished kidney function in adolescents at low levels of exposure.[11] Using the NHANES, Fadrowski et al[24] found that, among 769 adolescents with a median blood lead concentration of 1.5 μg/dL (15 ppb), a doubling of the concentration led to a significant reduction in the glomerular filtration rate. It is not clear whether chronic, low-level lead exposure in childhood or adolescence is sufficient to result in chronic renal failure or whether it is the cumulative effect of a variety of risk factors that ultimately results in the development of chronic renal failure. Still, this study is consistent with others linking lead exposure with chronic renal failure in adults.[11]

Lead can cause spontaneous abortion, low birth weight, and reduced growth in children. In a case–control study of pregnant women in Mexico City with blood lead concentrations that ranged from 1.3 μg/dL (13 ppb) to 29 (290 ppb) μg/dL, the odds for spontaneous abortion increased by 1.8 for every 5-μg/dL (50-ppb) increase in maternal blood lead concentration.[25] Early studies that examined the association of prenatal lead exposure and low birth weight or preterm birth, measured via either maternal or cord blood lead concentrations, found inconsistent results. However, in a large cohort involving more than 34 000 live births, investigators found that a 5-μg/dL (50-ppb) increase in blood lead concentrations was associated with a 61-g decrement in birth weight.[26] The National Toxicology Program concluded that maternal blood lead concentrations <5 μg/dL (<50 ppb) are associated with lower birth weight.

PREVENTING LEAD TOXICITY

Despite historical reductions in children's blood lead concentrations, preventing childhood lead toxicity remains a major public health priority in the United States. Many children who live in older, poorly maintained housing or older housing that undergoes renovation are at high risk for lead exposure. In the NHANES conducted from 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration ≥5 μg/dL (≥50 ppb), which represents about 535 000 US children 1 to 5 years of age.[12] Children who lived in older housing units experienced an increased risk

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for having a blood lead concentration in excess of 5 μg/dL (50 ppb); 15% of US children who lived in housing units built before 1950 had a blood lead concentration ≥5 μg/dL (≥50 ppb), whereas 4.2% of children who lived in housing built between 1950 and 1978 had a blood lead concentration ≥5 μg/dL (≥50 ppb), compared with 2.1% of children who lived in housing units built after 1978.[27] No treatments have been shown to be effective in ameliorating the permanent developmental effects of lead toxicity.[28] Finally, the economic costs of childhood lead toxicity are substantial. Despite the historical reductions in blood lead concentrations, it has been estimated that the annual cost of childhood lead exposure in the United States is $50 billion.[29] For every $1 invested to reduce lead hazards in housing units, society would benefit by an estimated $17 to $221, a cost–benefit ratio that is comparable with the cost–benefit ratio for childhood vaccines.[30]

The key to preventing lead toxicity in children is identification and elimination of the major sources of lead exposure. Primary prevention of lead exposure is now widely recognized as the optimal strategy because of the irreversible effects of low-level lead toxicity.[7,12] The primary prevention approach contrasts with practices and policies that too often have relied predominantly on detection of lead exposure only after children develop elevated blood lead concentrations.

SOURCES AND VARIABILITY OF LEAD EXPOSURE

Lead ingestion and absorption are dynamic during the first 2 years of life. Blood lead concentrations of children who live in lead-contaminated environments typically increase rapidly between 6 and 12 months of age, peak between 18 and 36 months of age, and then gradually decrease.[31] The peak in children's blood lead concentrations stems from the confluence of normal mouthing behaviors and increasing mobility.[31] Younger children also absorb lead more efficiently than older children and adults.[32] Iron deficiency can also increase the absorption of lead.[33]

A large number of housing units in the United States contain lead-based paint. In a national survey of housing conducted in 2011, it was estimated that 37 million (35%) of 106 million housing units contain lead-based paint.[34] Lead-based paint is the most common, highly concentrated source of lead exposure for children who live in older housing.[35] Paint that was used on both the interior and exterior of houses through the 1950s contained higher concentrations of lead than that of houses built in later years.[34,35] The lead concentration in paint and other media can be measured by using a hand-held instrument called the x-ray fluorescence (XRF) spectrum analyzer or by chemically analyzing paint chips.

The US Department of Housing and Urban Development (HUD) defines lead-based paint as an XRF reading ≥1 μg/cm^2 or 5000 ppm of lead in a paint chip.[36] The presence of *lead*-based *paint* is not as predictive of childhood lead exposure as a *lead paint hazard*. A lead paint hazard is defined by the EPA as "any condition that causes exposure to lead from contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated, or the presence of accessible (or chewable) surfaces, friction surfaces or impact surfaces that would result in adverse human health effects."[37]

Age of the housing is a major determinant of lead paint hazards. For housing built from 1978 to 1998, 2.7% contained one or more lead paint hazards, whereas the prevalence of residential hazards increased to 11.4% of housing built from 1960 to 1977, 39% of housing built from 1940 to 1959, and 67% of housing units built before 1940.[34] Federal regulations for defining a lead paint hazard in house dust are obsolete. Federal agencies have set environmental lead standards to protect children from having a blood lead concentration ≥10 μg/dL (≥100 ppb), but it is now recognized that there is no safe level of lead exposure. Therefore, because the current standards for lead in house dust, water, and soil remain too high to protect children,[31,38] the percentage of housing that contains one or more lead paint hazards described above is an underestimate.

Lead-based paint is the major source of lead, but ingestions of lead-contaminated house dust and residential soil are the major pathways for exposure (Fig 3).[35–42] House dust, which can be contaminated by small particles of lead-based paint or track-in of lead-contaminated soil, is a major pathway of lead exposure for children who live in older, poorly maintained housing.[40] Ingestions of lead-contaminated house dust and soil are also the primary pathways of exposure for children who live in homes that were recently abated or renovated.[43–45]

Sampling house dust for lead hazards involves using a special wipe to sample a specified area, such as the floor, which is readily accessible to a child, or a window sill or window trough.[36] Windows are often more heavily contaminated than floors because exterior paints often contained higher concentrations of lead, and window troughs can act as reservoirs. Sampling house dust for lead is used to screen older housing units that may contain lead hazards at the time of purchase or rental and before occupancy; to conduct a full risk assessment that involves extensive sampling of settled dust in housing units that failed a lead hazard screen or where there is a high probability of a lead hazard;

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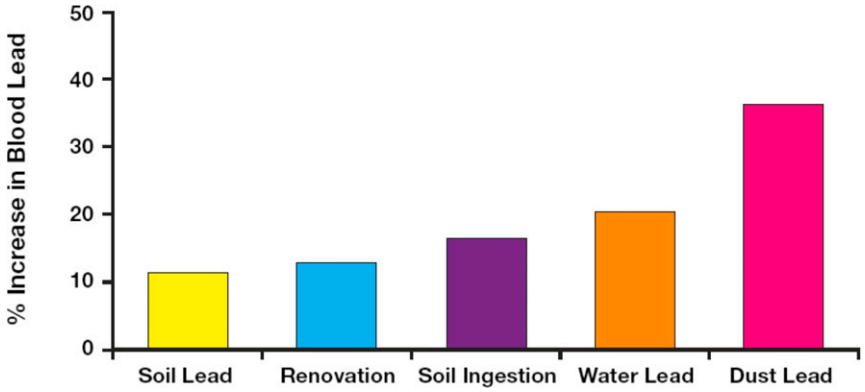

FIGURE 3
Contribution of lead exposure to children's blood lead concentrations. Adapted from Lanphear et al[31] and Spanier et al.[45]

TABLE 3 Common Sources of Lead Exposure

Source	Comment
House paint used before 1978 but especially before 1960	Deteriorated paint releases fine lead dust during home renovation.
Toys and furniture painted before 1976	
Painted toys made outside the United States	
Lead bullets, fishing sinkers, certain weights	Exposures often occur during practice in firing ranges.
Plumbing, pipes, and faucets	Lead leaches into drinking water when the pipes are connected with lead solder.
Soil contaminated by lead	Often in soil near highways and in yard of houses with exterior lead paint.
Hobbies involving soldering such as stained glass, jewelry making, pottery glazing, and miniature lead figures	Always check the labels.
Children's paint sets and art supplies	Always check the labels.
Pewter pitchers and ceramic dinner ware	
Storage batteries	
Parental occupation	Auto repair, mining, battery manufacture, pipe fitting and plumbing, welding, firing range use, ship building, painting, construction.
Folk remedies	Greta and Azarcon, Hispanic traditional medicines; Ghasard, an Indian folk medicine; and Ba-baw-saw, a Chinese herbal remedy, contain lead.
Cosmetics	Examples include Swad brand Sindoor, a cosmetic product used by traditional Hindus; Tiro, an eye cosmetic from Nigeria.
Candy from Mexico	Ingredient tamarind may contain lead.
Toy jewelry	A child died in 2006 after swallowing a metal heart charm that came with a purchase of shoes made by Reebok.

and to conduct clearance testing after repair or renovation of painted surfaces and after lead abatement, to verify that the housing unit is safe for occupancy (Table 3).[38]

Lead-contaminated soil is an important source of lead intake for children.[40,41] Lead-contaminated soil can directly contribute to children's blood lead concentrations via soil ingestion and indirectly from soil tracked indoors on shoes, which then contaminates house dust (Fig 3). Former mine and smelter communities present a particular risk to children for the ingestion of lead-contaminated soil, but lead in urban soil also is often heavily contaminated from the past use of leaded gasoline and paints. Other sources of lead in soil include weathering of lead-based exterior paint and nearby renovation or demolition activity. Soil testing is usually performed in areas where children play and the foundation perimeter. The EPA standards are 400 μg of lead per gram of soil for play areas and 1200 μg/g for the foundation perimeter.[37] Children's blood lead concentrations increase by approximately 3.8 μg/dL (38 ppb) for every 1000-ppm increase in soil lead concentration.[40]

Water is an important but often overlooked source of exposure for children, especially for infants who are formula fed.[5,46,47] Water typically contributes to approximately 20% of a child's blood lead concentrations if the water lead concentration exceeds 5 ppb (Fig 3).[31] The contribution of lead from water can be much higher for some children, especially for infants who ingest large quantities of tap water.[5,46,47] Children who reside in communities with lead service lines and inadequate anticorrosion control are also at increased risk for elevated blood lead concentrations.[48]

Phasing out leaded gasoline and creating stricter national air lead standards led to large reductions in the contribution of airborne lead to children's blood lead concentrations. Still, in some communities, such as those surrounding regional airports, airborne lead is an important source of lead exposure. Airborne lead is ingested primarily after it settles in house dust and soil where children play. Current sources of airborne lead include lead battery recycling operations, piston engine aircraft, and incinerators.[49] The contributions of airborne lead to children's blood lead concentrations are proportionately greater at the lower levels of exposure than at higher levels.[49]

Other sources of lead intake for children have been identified, such as nutritional supplements and folk medicines, ceramic dishware, and cosmetics[50–52] (Table 3).

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Lead brought into the home from a worksite by a parent can also be a major source of exposure for some children.[53] Consumer products such as children's toys, lunch boxes, crayons, and lipstick that are contaminated with lead have received a great deal of attention. These products constitute a small source of lead intake for most children, but they can be the major source for an individual child. Moreover, because lead exposure is cumulative and there is no apparent threshold for the adverse effects of lead exposure, all sources of lead exposure should be eliminated. It is the responsibility of the relevant federal agencies, such as the CPSC and the Food and Drug Administration (FDA), to promulgate and enforce standards that will protect children from lead-contaminated consumer products.

TABLE 4 Federal Standards for Lead in House Paint, House Dust, Soil, Water, Air, and Candy

Source	Standard
1. Lead-based paint (XRF)	1 μg/cm^2
2. Paint containing lead applied after August 14, 2009	90 ppm by wt
3. Testing (full risk assessment) for dust lead hazards (by wipe sampling)	
a. Floors	40 μg/ft^2
b. Interior window sills	200 μg/ft^2
4. Screening test for dust levels (by wipe sampling) to determine whether a full risk assessment is indicated	
a. Floors	25 μg/ft^2
b. Interior window sills	125 μg/ft^2
5. Dust lead clearance levels after abatement (by wipe sampling)	
a. Floors	40 μg/ft^2
b. Interior window sills	250 μg/ft^2
6. Bare residential soil	
a. Children's playground area	400 μg/g
b. Yard other than play area	1200 μg/g
7. Drinking water systems	
Exceeded if lead is above this concentration in >10% of a drinking water system's tap water samples	15 ppb (0.015 mg/L)
8. Candy likely to be consumed by small children	0.1 ppb
9. National Ambient Air Quality Standards: http://www.epa.gov/ttn/naaqs/standards/pb/s_pb_history.html	0.15 μg/m^3

Other state or local standards may vary, and the most protective standard applies. FDA has not set a standard for lead in cosmetics.
1–7, adapted from HUD.[36]
8, from FDA Guidance for Industry, November 2006.

RESIDENTIAL STANDARDS FOR LEAD IN PAINT, DUST, AND WATER

Lead in Paint and Dust

Under section 403 of Title X, the US Congress mandated the EPA to promulgate residential health-based lead standards that are designed to protect children from lead toxicity.[37] Standards are necessary to identify lead hazards before a child is unduly exposed and to identify the source of lead exposure for children who have blood lead concentrations ≥5 μg/dL (≥50 ppb).[31] Unless performed carefully, attempts to reduce lead exposure, such as abatement, repair, or renovation, can result in increased contamination and elevation in a child's blood lead concentration.[43–45] Dust clearance tests, which involve collecting dust from floors or windows of a home by using a lead-free material that resembles a baby wipe, should be conducted after extensive repair, renovation, or abatement of older housing units to determine whether the housing intervention was sufficient to protect children from lead hazards, especially in housing units built before 1960.[27,34] Property owners are required to disclose possible presence of lead-based paint in properties built before 1978 and are required to provide the blue pamphlet from the EPA, HUD, and Consumer Product Safety Commission titled "Protect Your Family From Lead in Your Home" at the time of rental or sale.

Most existing lead standards fail to protect children (Table 4). In 1978, the CPSC set the maximum paint lead concentration at 0.06% (600 ppm), because there was evidence that paint could be manufactured with this lower level of contamination.[3] Similarly, the EPA's action level of 15 ppb of lead in water, which is used to regulate water systems in the United States, is routinely (but erroneously) used as a health-based standard; it was not intended as a health-based standard, nor does it adequately protect children or pregnant women from adverse effects of lead exposure.[5,31] In 1988, the HUD established a postabatement floor dust standard of 200 μg/ft^2 because there was evidence that it was feasible to attain, not because it was demonstrated to be safe or protective. In 2001, the EPA promulgated residential lead standards of 40 μg/ft^2 for floors and 250 μg/ft^2 for window sills.[37] Unfortunately, these standards, which failed to protect children from having a blood lead concentration ≥10 μg/dL (≥100 ppb) when they were first promulgated, dictate the levels of lead contamination considered "normal" or "low," and they provide an illusion of safety.[38,40] At a floor standard of 40 μg/ft^2, the current EPA standard for floors, 50% of children were estimated to have a blood lead concentration ≥5 μg/dL (≥50 ppb); 5% of children have a blood lead concentration ≥5 μg/dL (≥50 ppb) at a median floor dust lead level of 1.5 μg/ft^2 (Fig 4).[42]

Scraping, sanding, or construction during painting, repair, renovation, or abatement of older housing can result in lead contamination of a child's environment.[41,43–45,54] In a controlled study of children with baseline blood lead concentrations

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<22 μg/dL (<220 ppb), Aschengrau et al[41] reported a 6.5-μg/dL (65-ppb) *increase* in blood lead concentrations for children whose homes had undergone paint abatement. Clark et al[44] reported that 6-month-old infants were 11 times more likely to have a ≥5 μg/dL (≥50 ppb) increase in blood lead concentrations after abatement compared with older children. Spanier et al[45] reported that routine renovation of older housing was associated with a 12% higher mean blood lead concentration. These studies indicate that the levels of lead-contaminated dust generated by lead hazard control work or housing renovations can result in excessive lead exposure and absorption for children unless there is sufficient cleanup and clearance testing after the work is completed. The HUD has published technical guidelines and regulations for workers involved in lead-based paint abatement or remediation of housing.[36]

In 1992, the US Congress mandated the EPA to promulgate regulations to protect children from lead exposure resulting from housing repairs and renovation.[37] In 2011, the EPA finalized recommendations for the Lead Renovation, Repair and Painting Rule.[54] Unfortunately, the EPA failed to recommend the validated wipe-sampling method for clearance testing. Instead, it used an unvalidated cloth test, which should not be confused with the validated wipe sampling test. The white cloth test assumes that if dust is visible on a white cloth (ie, the "white glove test"), it contains a lead hazard; conversely, if there is no visible dust, it does not contain a lead hazard.[54] Although it would be valuable to have a quick test to identify the presence of a lead hazard, the white cloth test is not a validated tool and is not a reliable way to quantify the presence of a lead hazard.

Lead hazard control work can result in sizable reductions in the magnitude of dust lead loading when proper procedures are followed and cleanup and postwork clearance testing are performed. In 1 study, dust lead levels (measured as micrograms of lead per area) immediately after professional abatement were 8.5 μg/ft^2, 8.0 μg/ft^2, and 21 μg/ft^2 for floors, interior window sills, and window troughs, respectively, representing reductions of more than 80% compared with preabatement levels.[55] In another study of more than 2600 housing units, postabatement dust lead levels were 12 μg/ft^2, 31 μg/ft^2, and 32 μg/ft^2 for floors, window sills and window troughs, respectively.[56] These levels were achieved with dust clearance testing set at 100 μg/ft^2 or higher, but floor dust lead levels below 5 μg/ft^2 can be achieved by following a specific protocol. In 1 unpublished study of more than 160 housing units built before 1978, 1 group found that it is possible to routinely meet floor lead levels below 5 μg/ft^2 after housing renovations costing an average of $5600 (B. Lanphear, MD, MPH, Simon Fraser University, unpublished data).

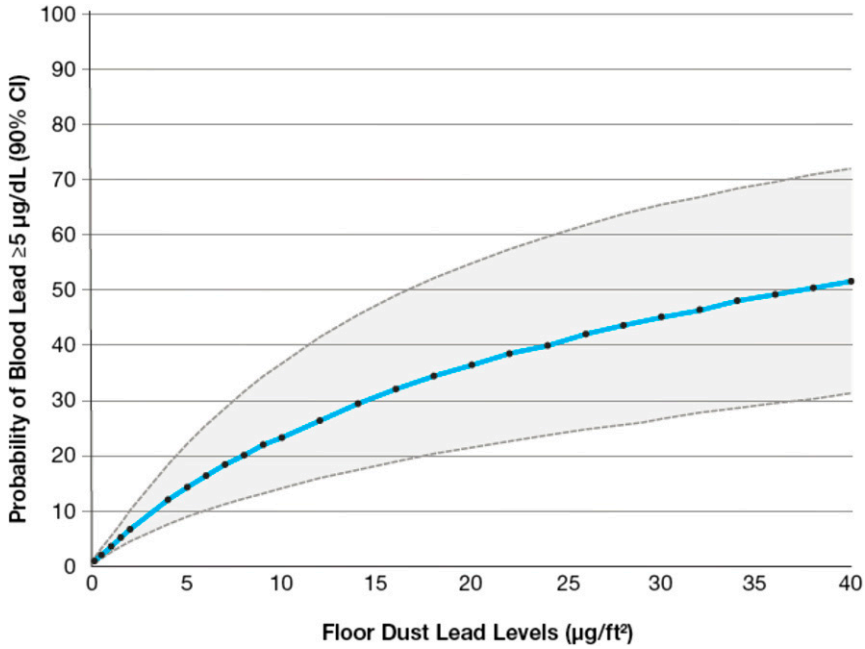

FIGURE 4
Estimated probability of blood lead concentrations ≥5 μg/dL for children living in pre-1978 housing by floor dust lead level, NHANES, 1999–2004. CI, confidence interval. Adapted from Dixon et al.[42]

Lead in Water

The primary sources of lead in water, which can be dissolved or particulate, consist of lead service lines, lead solder, and brass fittings that contain high concentrations of lead.[5] Plumbing installed before 1986, the year a federal ban was issued on using lead pipe and lead solder and a maximum lead content of 8% by weight for brass plumbing was established, is more likely to contain higher concentrations of lead.[5] Lead services lines that are being replaced, are undergoing maintenance, or are damaged can release particles of lead that can be ingested.[57] Partial service line replacement, which is sometimes performed to minimize the cost of service line repair by water authorities, fails to reduce lead exposure.[57] Proper maintenance and ultimately full replacement of water service lines will be necessary to eliminate lead intake from water, but it must be performed with proper precautions. In the interim,

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water filters that are certified by the National Sanitation Foundation for lead removal can effectively reduce water lead concentrations. The EPA recommends running the cold water of residential units for up to 2 minutes to flush the lead leached from pipes out of the plumbing system, but flushing is useful only in housing units without lead service lines.[58–61] In housing units without lead service lines, and where the primary source is brass fittings or lead-soldered joints, a 1-minute flush may be sufficient, depending on the length of plumbing; for housing units with lead service lines, flushing may *increase* lead exposure, again depending on the length of the lead service lines.[58–61]

Drinking fountains in older schools can be an important source of lead exposure.[5] Unfortunately, there are no regulations for evaluating lead contamination of school drinking fountains in most states.

Implementation of the Lead and Copper Rule has significantly reduced tap water lead levels. In 1991, the US EPA set an action level for lead in water of 15 μg/L or (15 ppb).[6] Communities in which >10% of water samples taken from various taps throughout the system exceed 15 ppb are considered to be out of compliance and are required by the EPA to take action to reduce lead levels using corrosion control methods or replacement of lead service lines. The action level is used as an administrative tool to evaluate community-level exposure; it is not a health-based standard. The maximum contaminant level goal, the value the EPA deems acceptable for health, is 0.

Testing Asymptomatic Children for Elevated Blood Lead Concentrations

In the primary care office, primary prevention begins with education and counseling. Ideally, environmental assessments, such as screening older housing units, occurs before a child is born so that parents can identify and hire trained workers to abate environmental lead exposure hazards.[12] It is especially important to conduct an environmental assessment for lead if a family resides in a housing unit built before 1960 that has undergone recent renovation, repair, or painting or if it is poorly maintained.

Screening questionnaires frequently used in the primary care setting fail to identify children who have elevated blood lead concentrations,[62] but they may be useful as a tool to identify lead hazards in children who have a blood lead concentration ≥5 μg/dL (≥50 ppb). In addition, public health agencies often use other methods of targeting children who should be screened with a blood lead test on the basis of community and residential characteristics, such as older housing. Blood lead surveillance data can be used to identify cities, communities, or housing units at higher than typical risk for lead poisoning. Technologies using geographic information system–based analyses and surveillance from electronic medical records are important tools to identify at-risk children who should have their blood lead concentration measured.

In 1991, the CDC recommended universal blood lead testing for all children.[63] In 2005, the AAP recommended that states and cities formulate their own lead screening recommendations on the basis of local data because of the wide variation in lead exposure.[7] The AAP, consistent with the CDC, recommended universal screening of children's blood for lead if they lived in communities with more than 27% of housing built before 1950 or a prevalence of blood lead concentrations ≥10 μg/dL in children 12 to 36 months old of 12% or greater.[7,12,63,64] Screening is not efficient after 36 months of age unless specific high-risk factors are identified; the likelihood of a child having a blood lead concentration >10 μg/dL after 36 months of age is low.[65] These recommendations now need to be updated to conform to with our new understanding of lead toxicity.[11,12]

A detailed evaluation and follow-up of children who have blood lead concentrations <10 μg/dL (<100 ppb) is now indicated. Current federal regulations for clinical laboratory testing through the Clinical Laboratory Improvement Amendments of 1988[66] permit an allowable laboratory error in blood lead proficiency testing programs of ±4 μg/dL (±40 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb). This range of error can result in children being misclassified and cause additional anxiety or false comfort when blood lead concentrations within the margin of error erroneously are interpreted as going up or down. The majority of laboratories analyzing blood lead reference materials routinely achieved laboratory error of ±2 μg/dL (±20 ppb) at blood lead concentrations ≤20 μg/dL (≤200 ppb).[67] Changing the allowable laboratory error to tighter performance requirements, such as ±2 μg/dL (±20 ppb), could decrease misclassification of children and lead to better allocation of health care resources.

Case Management of Children With a Blood Lead Concentration at or Above Reference Value

The AAP is adopting the current reference value of ≥5 μg/dL (≥50 ppb) for case management.[12] The CDC recommended that the 97.5th percentile of blood lead concentrations derived from the combination of the 2 most recent cycles of NHANES data be used to identify children who have unacceptably high exposure and to set public health goals.[12] The CDC will reconsider the reference value for children's blood lead concentrations every 4 years.[12]

After confirmatory testing, it is important to monitor children who have blood lead concentrations

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TABLE 5 AAP Recommendations on Management of Childhood Lead Exposure and Poisoning

Lead Level	Recommendation
<5 μg/dL (<50 ppb)	1. Review laboratory results with family. For reference, the geometric mean blood lead concentration for US children 1–5 y old is <2 μg/dL (<20 ppb); 2.5% have a blood lead concentration ≥5 μg/dL (≥50 ppb). 2. Repeat the blood lead concentration in 6–12 mo if the child is at high risk for lead exposure or if risk profile increases. Follow all local and state lead screening recommendations. 3. For children initially screened before 12 mo of age, consider retesting in 3–6 mo for children at high risk; lead exposure may increase as mobility increases. 4. Perform routine assessment of nutrition and physical and mental development and assess risk factors for iron deficiency. 5. Provide anticipatory guidance about common sources of environmental lead exposure: paint in homes or child care facilities built before 1960, soil near roadways, take-home exposures related to adult occupations, and imported spices, cosmetics, folk remedies, and cookware.
5–14 μg/dL (50–140 ppb)	1. Perform steps as described above for blood lead concentrations <5 μg/dL (<50 ppb). 2. Retest venous blood lead concentration within 1–3 mo to verify that the lead concentration is not rising. If it is stable or decreasing, retest the blood lead concentration in 3 mo. Refer patient to local health authorities if such resources are available. Most states require elevated blood lead concentrations be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or www.cdc.gov/nceh/lead or the National Lead Information Center at 800-424-LEAD (5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing or eliminating exposures. Take care to consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. Encourage the consumption of iron-enriched foods (eg, cereals, meats). Encourage families to sign up for the Special Supplemental Nutrition Program for Women, Infants, and Children, if eligible. 5. Screen for iron sufficiency with adequate laboratory testing (complete blood cell count, ferritin, C-reactive protein) and provide treatment per AAP guidelines. Consider starting a multivitamin with iron. 6. Perform structured developmental screening evaluations at child health maintenance visits, because lead's effect on development may manifest over years.
15–44 μg/dL (150–440 ppb)	1. Perform steps as described above for blood lead concentrations 5–14 μg/dL (50–140 ppb). 2. Confirm the blood lead concentration with repeat venous sample within 1–4 wk. 3. Abdominal radiography should be considered for children who have a history of pica for paint chips or excessive mouthing behaviors. Gut decontamination may be considered if leaded foreign bodies are visualized on radiography. Any treatment of blood lead concentrations in this range should be provided in consultation with an expert. Contact local pediatric environmental health specialty unit (www.pehsu.net or 888-347-2632) or local or regional Poison Control Center (www.aapcc.org or 800-222-1222) for guidance.
>44 μg/dL (>440 ppb)	1. Follow guidance for blood lead level 15–44 μg/dL (150–440 ppb) as listed above. 2. Confirm the blood lead concentration with repeat venous lead level within 48 h. 3. Consider hospitalization or chelation therapy (managed with the assistance of an experienced provider). Safety of the home or child care facility with respect to lead hazards, isolation of the lead source, family social situation, and chronicity of the exposure are factors that may influence management. Contact your regional pediatric environmental health specialty unit or Poison Control Center or the CDC for assistance.

Modified from Pediatric Environmental Health Specialty Unit. Medical Management of Childhood Lead Exposure and Poisoning (http://www.pehsu.net/_Library/facts/medical-mgmnt-childhood-lead-exposure-June-2013.pdf).

≥5 μg/dL (≥50 ppb). The pediatrician should inform the local or state health department and request an inspection of the child's house to identify and remediate any lead hazards (Table 4). Screening children for iron deficiency and insufficient dietary calcium intake is also important.[7] A detailed description of the diagnosis and treatment of significant lead toxicity (ie, ≥45 μg/dL [≥450 ppb]) is beyond the scope of this policy statement, but guidance is available in an earlier publication of the AAP[7] and through the Pediatric Environmental Health Specialty Units Web site (www.pehsu.net) (Table 5). Children who have elevated blood lead concentrations need to be monitored until environmental investigations and remediation are complete and blood lead concentrations decline.[12]

The AAP recognizes that environmental investigations will typically be conducted by local or state health or environmental departments to identify sources of lead exposure for a child who has a blood lead concentration ≥5 μg/dL (≥50 ppb). In many cases, however, the pediatrician can provide clues about possible sources of lead intake by taking a careful history.

Case management involves a thorough investigation of potential sources of lead poisoning in a child's environment, including paint, house dust, water, and soil. Case management also includes a questionnaire and visual inspection for other potential sources of lead exposure, including antique furniture, toys, ethnic folk remedies, and consumer products such as imported food, cosmetics, and ceramics.[12,50–52] It can include testing deteriorated paint on furniture, such as

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a crib, taking dust samples from child care settings or a family member's house, and taking soil samples from a child's play area.

SUMMARY AND RECOMMENDATIONS

Lead toxicity results in substantial, population-level effects on children's intellectual abilities, academic abilities, problem behaviors, and birth weight. Pediatricians may be well equipped to advocate for more stringent regulations to reduce sources of lead exposure and prevent childhood lead exposure. The AAP recognizes the importance of a variety of educational, enforcement, and environmental actions to reduce the number of children who are exposed to lead hazards and concur with recent detailed recommendations for prioritization of primary prevention of lead toxicity.[7,12,68–70] The AAP offers the following recommendations for government as well as pediatricians, other health care providers, and public health officials.

Recommendations for Government

1. The federal government should expand the resources currently offered by the HUD to local and state governments for lead hazard control work.

2. The federal government should provide both financial and nonfinancial resources and technical guidance through the CDC, the EPA, and the HUD to state and local public health agencies as well as environmental and housing agencies engaged in childhood lead poisoning prevention efforts.

3. The US EPA and HUD should review their protocols for identifying and mitigating residential lead hazards (eg, lead-based paint, dust, and soil) and lead-contaminated water from lead service lines or lead solder and revise downward the allowable levels of lead in house dust, soil, paint, and water to conform with the recognition that there are no safe levels of lead.

4. The federal government should resume and expand its vital role in providing federal public health leadership in childhood lead poisoning prevention work through the CDC. Allocation of additional resources would be necessary to accomplish this goal.

5. The Centers for Medicare & Medicaid Services, which is responsible for regulating clinical laboratory testing through the Clinical Laboratory Improvement Amendments of 1988,[69] should expeditiously revise current regulations for allowable laboratory error permitted in blood lead proficiency testing programs from ±4 μg/dL (±40 ppb) to ±2 μg/dL (±20 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb).[12] In the future, when feasible, allowable laboratory error permitted in blood lead proficiency testing programs should be reduced even more, to ±1 μg/dL (±10 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb).

6. The federal government should continue to conduct the NHANES and provide national data on trends in blood lead concentrations. These newer data should be used by the CDC to periodically formulate a new reference value and guide clinical and public health interventions.

7. The federal government should continue to regularly survey children and adolescents in the NHANES for ADHD and conduct disorder by using validated diagnostic surveys from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* to examine the association of lower blood lead concentrations with these conditions.

8. Local or state governments, in consultation with pediatricians, should develop policies and regulations requiring the remediation of lead-contaminated housing and child care facilities, including the elimination of lead hazards during transfer of rental units or renovation or demolition of older housing.

9. State and local governments should collect, analyze, and publish blood lead test results performed in their jurisdictions and should regularly publish reports of age of housing and other risk factors for children having blood lead concentrations ≥5 μg/dL (≥50 ppb). These reports should be readily available to pediatricians, health care providers, and the public.

10. Federal, state, and local governments should provide resources for environmental evaluations and case management of children who have blood lead concentrations ≥5 μg/dL (≥50 ppb), in conjunction with the child's primary care provider.

11. State and local governments should take steps to ensure that water fountains in schools do not exceed water lead concentrations of 1 ppb.

Recommendations for Pediatricians, Health Care Providers, and Public Health Officials

1. Pediatricians are in a unique position to work with public health officials to conduct surveys of blood lead concentrations among a randomly selected,

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representative sample of children in their states or communities at regular intervals to identify trends in blood lead concentrations. These periodic surveys are especially important for children who live in highly contaminated communities, such as smelter communities or regions with a historically high prevalence of lead exposure.

2. Pediatricians, heath care providers, and public health officials should routinely recommend individual environmental assessments of older housing,[12] particularly if a family resides in a housing unit built before 1960 that has undergone recent renovation, repair, or painting or that has been poorly maintained.

3. Pediatricians and public health officials should advocate for the promulgation and enforcement of strict legal standards based on empirical data that regulate allowable levels of lead in air, water, soil, house dust, and consumer products. These standards should address the major sources of lead exposure, including industrial emissions, lead paint in older housing, lead-contaminated soil, water service lines, and consumer products.

4. Pediatricians should be familiar with collection and interpretation of reports of lead hazards found in house dust, soil, paint, and water, or they should be able to refer families to a pediatrician, health care provider, or specialist who is familiar with these tools.

5. Pediatricians, women's health care providers, and public health officials should be familiar with federal, state, local, and professional recommendations or requirements for screening children and pregnant women for lead poisoning.[12,68,69]

6. Pediatricians and other primary care providers should test asymptomatic children for elevated blood lead concentrations according to federal, local, and state requirements. Immigrant, refugee, and internationally adopted children also should be tested for blood lead concentrations when they arrive in the United States because of their increased risk.[71,72] Blood lead tests do not need to be duplicated, but the pediatrician or other primary care provider should attempt to verify that screening was performed elsewhere and determine the result before testing is deferred during the office visit.

7. Pediatricians and other primary care health providers should conduct targeted screening of children for elevated blood lead concentrations if they are 12 to 24 months of age and live in communities or census block groups with ≥25% of housing built before 1960 or a prevalence of children's blood lead concentrations ≥5 μg/dL (≥50 ppb) of ≥5%.

8. Pediatricians and other primary care providers should test children for elevated blood lead concentrations if they live in or visit a home or child care facility with an identified lead hazard or a home built before 1960 that is in poor repair or was renovated in the past 6 months.[7,12]

9. Pediatricians and primary care providers should work with their federal, state, and local governments to ensure that a comprehensive environmental inspection is conducted in the housing units of children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) and that they receive appropriate case management.

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ABBREVIATIONS

AAP: American Academy of Pediatrics
ADHD: attention-deficit/hyperactivity disorder
CDC: Centers for Disease Control and Prevention
CPSC: Consumer Product Safety Commission
EPA: Environmental Protection Agency
FDA: US Food and Drug Administration
HUD: Department of Housing and Urban Development
NHANES: National Health and Nutrition Examination Survey
XRF: x-ray fluorescence

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COUNCIL ON ENVIRONMENTAL HEALTH
Pediatrics 2016;138;
DOI: 10.1542/peds.2016-1493 originally published online June 20, 2016;

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January 17, 2017

PJ Mikolajewski
A & A MHP, System No. 5400504
P.O. Box 8305
Rancho Santa Fe, CA 92067

Dear: PJ Mikolajewski

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

A & A MHP
(Public Water System No. 5400504)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

    b. The date of the request;

    c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017

Mike Brown, Process Supervisor
Aera Energy-LLC, System No. 1500495
59231 Main Camp Road
McKittrick, CA 93251

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Brown:

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

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

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

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

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

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

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Aera Energy-LLC
(Public Water System No. *1500495*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

      ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

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

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

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

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

Preparation

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

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

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

Initial Sampling

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

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

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

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

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

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

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

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

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017

Jim Akin
Owner
Akin Water Co., System No. 5401038
642 E. Henderson Avenue
Porterville, CA 93257

Dear: Jim Akin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Akin Water Co.
(Public Water System No. 5401038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

    b. The date of the request;

    c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017 PWS No. CA0110016

Eileen White
Manager of Operations
EBMUD - Alameda Point
375 Eleventh Street
Oakland, CA 94607-4246

Dear Eileen White:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alameda Point
(Public Water System No. *CA0110016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017 PWS No. CA0110001

Robert Shaver
General Manager
Alameda County Water District
43885 S Grimmer Blvd
Fremont, CA 94538-6348

Dear Robert Shaver:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alameda County Water District
(Public Water System No. *CA0110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Thomas Adcock, President
Alco Water Service, System No. 2710001
249 Williams Road
Salinas, CA. 93905

Dear Mr. Adcock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

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

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ALCO WATER SERVICE
(Public Water System No. *2710001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017

Mohammed Alsahybi
Ali Mutual Water Co., System No. 5403144
14036 Avenue 232
Tulare, CA 93274

Dear: Mohammed Alsahybi

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ali Mutual Water Co.
(Public Water System No. 5403144)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

    b. The date of the request;

    c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ALICE MANOR
Public Water System No. *1000199*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_028**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 6/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Sherry Hunter
Board President
Allensworth CSD, System No. 5400544
P.O. Box 11966
Earlimart, CA 93219

Dear: Sherry Hunter

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Allensworth CSD
(Public Water System No. 5400544)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

    b. The date of the request;

    c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

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

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

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

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

Preparation

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

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

Initial Sampling

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

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

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

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

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

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

Corrective Action Check Sampling

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

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

Laboratory Concentrations

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

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017

Board of Directors
Alpaugh Community Services District, System No. 5410050
P. O. Box 262
Alpaugh, CA 93201

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

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

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

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

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

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

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

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alpaugh Community Services District
(Public Water System No. *5410050*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

      ii. If the sample location remains in service, and

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

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

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

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

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

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

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

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

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

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

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

   b. The date of the request;

   c. The date of the initial meeting;

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

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

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

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

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

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

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

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

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

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

Preparation

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

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

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

Initial Sampling

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

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

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

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

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

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

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

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

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

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

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

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

Laboratory Results

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

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

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

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

Corrective Action Plan

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

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

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

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

January 17, 2017

Ricardo Castillo, Field Manager
Alpine Water Users Association
System No. 3610002
P.O. Box 122
Twin Peaks, CA 92391

Dear: Ricardo Castillo,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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

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

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

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

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

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

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alpine Water Users Association
(Public Water System No. *3610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

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

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

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

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/27/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MICHAEL (RORY) MUNNS
GENERAL MANAGER
AMERICAN WATER OPS & MAINTENANCE - VAFB, System No. 4210700
VANDENBERG AIR FORCE BASE 30 CES/CER 1172 ICELAND AVENUE
VANDENBERG AFB, CA 93437

Dear: MICHAEL (RORY) MUNNS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the AMERICAN WATER OPS & MAINTENANCE - VAFB water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AMERICAN WATER OPS & MAINTENANCE - VAFB

(Public Water System No. *4210700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

385. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

386. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

387. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

388. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

389. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

390. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

391. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

392. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

433. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

434. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

435. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

436. The water system may stop lead sampling at a school if:

kkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnn. If requested in writing by the school's authorized school representative.

437. The water system is responsible for the following costs:

ssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

438. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

439. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

440. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhh. The date of the request;

iiiiiiiiii. The date of the initial meeting;

jjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkk. The date of initial lead sampling and all repeat samples.

441. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Peter Goering
Village Manager
Ananda Village Water System, System No. 2900562
14618 Tyler Foote Crossing Road
Nevada City, CA. 95959

Dear: Mr. Goering

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-562

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Ananda Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Ken Atwell (email)
Ananda Village Water Operator

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ananda Church of Self-Realization
for
Ananda Village Water System
(Public Water System No.2900562)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-562** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th, 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Daniel Smith, Administrative Ops
Apple Valley Foothill CWD
System No. 3600008
22545 Del Oro Road
Apple Valley, CA 92308

Dear: Daniel Smith,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Foothill CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Foothill CWD
(Public Water System No. *3600008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gail Hunter, General Manager
Apple Valley Heights CWD
System No. 3600009
9429 Cerra Vista
Apple Valley, CA 92308

Dear: Gail Hunter,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Heights CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Heights CWD
(Public Water System No. *3600009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Antonio D. Penna, General Manager
Apple Valley Ranchos WC
System No. 3610003
P.O. Box 7005
Apple Valley, CA 92307

Dear: Antonio D. Penna,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Ranchos WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Ranchos WC
(Public Water System No. *3610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Adam Ambrose, Production Supervisor
Apple Valley Ranchos Water Co - Yermo
System No. 3610118
P.O. Box 7005
Apple Valley, CA 92307

Dear: Adam Ambrose,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Ranchos Water Co - Yermo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Ranchos Water Co - Yermo
(Public Water System No. *3610118*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Scheimer
Manager
ARBUCKLE PUBLIC UTILITY DISTRICT, System No. 610001
PO BOX 207
ARBUCKLE, CA 95912

Dear : James Scheimer

ISSUANCE OF PERMIT AMENDMENT 73-022A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARBUCKLE PUBLIC UTILITY DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

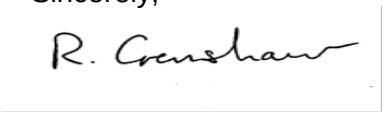

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 73-022A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARBUCKLE PUBLIC UTILITY DISTRICT
(Public Water System No. *610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***73-022A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Jim Maciel, Board President
Armona Community Services District, System No. 1610001
P.O. Box 486
Armona, CA 93202

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Maciel:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Armona Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Armona Community Services District
(Public Water System No. *1610001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 5, 2018 System No. 4910018

Sophie James, Director of Water Quality
Armstrong Valley-Cal Water Service (PUC)
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910018

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Armstrong Valley-Cal Water Service (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at: http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

The Division understands that the System has been complying with this amended permit.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910018

cc: Darin McCosker, Local Manager, P.O. Box 1133, Lucerne, CA 95458
Loni Lind, Water Quality PM, 2222 Dr. Martin Luther King Jr. Parkway, Chico, CA 95928
Sonoma County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Armstrong Valley-Cal Water Service (PUC)
(Public Water System No. 4910018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 5, 2018

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Manuel Quaresma, President
Aromas Hills Mutual Water Association, System No. 3500576
c/o A.H.M.W.A PO Box 740
Aromas, CA. 95004

Dear Mr. Quaresma:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Aromas Hills Mutual Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AROMAS HILLS
MUTUAL WATER ASSOCIATION
(Public Water System No. *3500576*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Vicki Morris, General Manager
Aromas Water District, System No. 3510004
PO Box 388
Aromas, CA. 95004

Dear Ms. Morris:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Aromas Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AROMAS WATER DISTRICT
(Public Water System No. *3510004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Norman Huff, General Manager
Arrowbear Park CWD
System No. 3610110
P.O. Box 4045
Arrowbear Lake, CA 92382

Dear: Norman Huff,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Arrowbear Park CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Arrowbear Park CWD
(Public Water System No. *3610110*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ronald W. Fussell Jr., Water Distribution Operator
Arrowhead Villas Mutual Service Company
System No. 3610093
P.O. Box 77
Sky Forest, CA 92385

Dear: Ronald W. Fussell Jr.,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

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AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

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(Public Water System No. *3610093*)

By The

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Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANE TAYLOR
PUBLIC WORKS SUPERVISOR
ARROYO GRANDE WATER DEPARTMENT, System No. 4010001
300 EAST BRANCH STREET
ARROYO GRANDE, CA 93420

Dear: SHANE TAYLOR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARROYO GRANDE WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

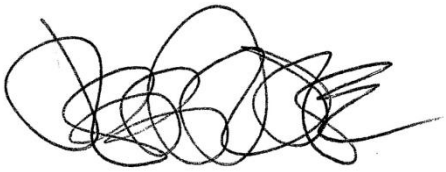

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARROYO GRANDE WATER DEPARTMENT
(Public Water System No. *4010001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

25. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

26. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

27. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

28. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

29. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

30. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

31. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

32. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

28. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

29. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

30. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

31. The water system may stop lead sampling at a school if:

m. All initial samples are less than or equal to 15 ppb; or

n. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

vii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

viii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

o. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

p. If requested in writing by the school's authorized school representative.

32. The water system is responsible for the following costs:

g. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

h. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

33. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

34. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

35. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    p. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    q. The date of the request;

    r. The date of the initial meeting;

    s. The date of the sampling plan along with a copy of each sampling plan; and

    t. The date of initial lead sampling and all repeat samples.

36. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jack Cavier
President
ARTOIS COMMUNITY S.D., System No. 1100203
P.O. Box 130
ARTOIS, CA 95913

Dear : Jack Cavier

ISSUANCE OF PERMIT AMENDMENT 010293P11021A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARTOIS COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

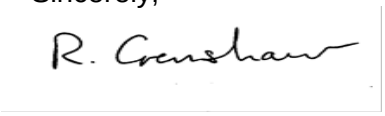

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P11021A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARTOIS COMMUNITY S.D.
(Public Water System No. *1100203*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P11021A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Raul Barraza, General Manager
Arvin Community Services District, System No. 1510001
309 Campus Drive
Arvin, CA 93203

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Raul Barraza:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Arvin Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Arvin Community Services District
(Public Water System No. *1510001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN NEIL
GENERAL MANAGER
ATASCADERO MUTUAL WATER CO, System No. 4010002
P.O. BOX 6075
ATASCADERO, CA 93423

Dear: JOHN NEIL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ATASCADERO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

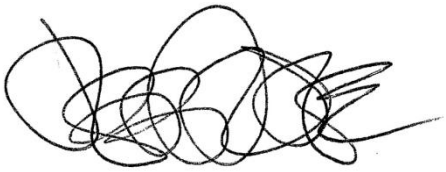

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ATASCADERO MUTUAL WATER CO
(Public Water System No. *4010002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

33. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

34. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

35. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

36. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

37. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

38. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

39. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

40. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

37. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

38. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

39. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

40. The water system may stop lead sampling at a school if:

q. All initial samples are less than or equal to 15 ppb; or

r. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

x. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

s. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

t. If requested in writing by the school's authorized school representative.

41. The water system is responsible for the following costs:

i. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

j. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

42. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

43. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

44. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    u. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    v. The date of the request;

    w. The date of the initial meeting;

    x. The date of the sampling plan along with a copy of each sampling plan; and

    y. The date of initial lead sampling and all repeat samples.

45. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Deborah Wolfe
President
Averydale Mutual Water Company
3659 E. Avenue H-4
Lancaster, CA 93535

Dear: Deborah Wolfe

System No: 1910023 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Averydale Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910023 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910023 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Averydale Mutual Water Company
Public Water System No. *1910023*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRAD HAGEMANN
GENERAL MANAGER
AVILA BEACH COMMUNITY SERVICES DISTRICT, System No. 4000222
191 San Miguel Street
AVILA BEACH, CA 93424

Dear: BRAD HAGEMANN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the AVILA BEACH COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

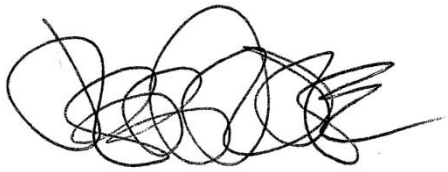

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AVILA BEACH COMMUNITY SERVICES DISTRICT

(Public Water System No. *4000222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency - Buckhorn, System No. 0310012
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency - Buckhorn water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Buckhorn
(Public Water System No. 0310012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency - Ione, System No. 0310002
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency - Ione water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Ione
(Public Water System No. 0310002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017.** The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency – Sutter Creek, (System No. 0310003)
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency – Sutter Creek water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Sutter Creek
(Public Water System No. 0310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jared Macias
Assistant Director - Water Operations
Azusa Light and Water
729 N. Azusa Avenue
Azusa, CA 91702

Dear: Jared Macias

System No: 1910007 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Azusa Light and Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910007 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910007 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Azusa Light and Water
Public Water System No. *1910007*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kent McNiece
Badger Hill Estates, System No. 5400710
1 High Sierra Drive
Exeter, CA 93221

Dear: Kent McNiece

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Badger Hill Estates water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Badger Hill Estates
(Public Water System No. 5400710)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Jacob Overson
Baker Community Services District
LPA ID: 3600022
P O Box 590
Baker, CA 92309

Dear Mr. Overson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Baker Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Baker Community Services District

System No. 3600022

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Bakman, President
Bakman Water Company, System No. 1010001
P.O. Box 7965
Fresno, CA 93747

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tim Bakman:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bakman Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bakman Water Company
(Public Water System No. *1010001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2400167
January 17, 2017

MANUEL JIMENEZ, PRESIDENT
BALLICO CSD
P.O. BOX 255
BALLICO, CA 95303

Dear MANUEL JIMENEZ,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BALLICO CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BALLICO CSD
(Public Water System No.: *2400167*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

89. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

90. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

91. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

92. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

93. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

94. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

95. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

96. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

100. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

101. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

102. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

103. The water system may stop lead sampling at a school if:

ss. All initial samples are less than or equal to 15 ppb; or

tt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vv. If requested in writing by the school's authorized school representative.

104. The water system is responsible for the following costs:

w. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

x. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

105. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

106. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

107. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eee. The date of the request;

fff. The date of the initial meeting;

ggg. The date of the sampling plan along with a copy of each sampling plan; and

hhh. The date of initial lead sampling and all repeat samples.

108. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

177. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
178. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
179. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
180. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
181. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
182. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
183. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

184. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
185. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
186. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
187. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
188. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
189. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
190. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
191. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
192. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

78. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
79. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
80. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

81. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
82. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
83. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
84. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

56. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
57. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
58. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
59. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
60. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
38. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
39. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

40. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

78. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
79. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
80. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
81. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
82. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
83. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
84. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010003
January 17, 2017

SHAWN ROOPE, SUPERINTENDENT
BASS LAKE WATER COMPANY
P.O. BOX 113
BASS LAKE, CA 93604

Dear SHAWN ROOPE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BASS LAKE WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BASS LAKE WATER COMPANY
(Public Water System No.: *2010003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

25. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

26. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

27. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

28. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

29. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

30. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

31. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

32. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

28. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

29. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

30. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

31. The water system may stop lead sampling at a school if:

m. All initial samples are less than or equal to 15 ppb; or

n. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

vii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

viii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

o. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

p. If requested in writing by the school's authorized school representative.

32. The water system is responsible for the following costs:

g. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

h. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

33. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

34. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

35. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    p. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    q. The date of the request;

    r. The date of the initial meeting;

    s. The date of the sampling plan along with a copy of each sampling plan; and

    t. The date of initial lead sampling and all repeat samples.

36. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

49. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
50. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
51. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
52. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
53. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
54. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
55. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

56. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
57. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
58. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
59. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
60. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
61. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
62. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
63. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
64. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

22. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
23. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
24. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

25. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
26. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
27. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
28. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

16. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
17. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
18. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
19. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
20. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
14. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
15. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

16. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

22. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
23. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
24. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
25. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
26. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
27. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
28. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Calvin Hendrix
Deputy Base Civ Eng
BEALE AIR FORCE BASE, System No. 5810700
6601 B Street
BEALE AFB, CA 95903

Dear : Mr. Calvin Hendrix

ISSUANCE OF PERMIT AMENDMENT 012101P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BEALE AIR FORCE BASE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

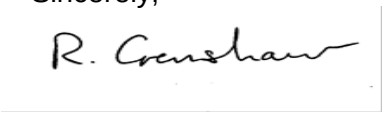

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012101P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BEALE AIR FORCE BASE
(Public Water System No. *5810700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012101P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Edmonds, General Manager
Bear Valley Community Services District
28999 S. Lower Valley Road
Tehachapi, CA 93561

Dear Mr. Edmonds:

ISSUANCE OF PERMIT AMENDMENT: 1510038-2017PA_SCHOOLS (System No. 1510038)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bear Valley Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510038-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bear Valley Community Services District
(Public Water System No. 1510038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510038-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Tony Lara
Assistant General Manager
Beaumont Cherry Valley WD, System No. 3310002
560 Magnolia Ave.
Beaumont, CA 92223

Dear Tony Lara:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beaumont Cherry Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beaumont Cherry Valley Water District
(Public Water System No. 3310002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Glen Lublin
President
Bedel Mutual Water Co., System No. 5400816
2536 East College Avenue
Visalia, CA 93292

Dear: Glen Lublin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bedel Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bedel Mutual Water Co.
(Public Water System No. 5400816)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bella Vista Water District
(Public Water System No. 4510014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically

found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8 In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Lee Muchow
Secretary
Bellflower Home Gardens Water Company
17447 Lakewood Boulevard
Bellflower, CA 90706

Dear: Lee Muchow

System No: 1910012 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower Home Gardens Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910012 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910012 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower Home Gardens Water Company
Public Water System No. *1910012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

December 20, 2016

Len Gorecki
Director of Public Works
Bellflower Municipal Water System
16600 Civic Center Drive
Bellflower, CA 90706

Dear Len Gorecki:

System No. 1910018 - ISSUANCE OF PERMIT AMENDMENT 2016PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower Municipal Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central District

Enclosure: Permit Amendment 2016PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit – 1910018 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910018 Permit No: 2016PA_SCHOOLS 20161220

ENCLOSURE

PERMIT AMENDMENT 2016PA_SCHOOLS

Bellflower Municipal Water System

Los Angeles County
System No. 1910018

December 20, 2016

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower Municipal Water System
Public Water System No. *1910018*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2016PA-SCHOOLS** EFFECTIVE DATE**: December 20, 2016**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

And WHEREAS:

1. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

2. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

3. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

4. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

5. If any school that is a customer of the water system submits a written request for assistance from the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school, to the water system, the water system is required by this permit amendment to meet with the school staff, develop a lead sampling plan, collect up to five samples from regularly used faucets at the school, submit the samples to a laboratory certified by the SWRCB's Environmental Laboratory Accreditation Program (ELAP) to analyze lead, and require the laboratory to submit the results to the SWRCB electronically and to provide a copy to the requesting school.

Within 10 business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, the water system shall resample at that sample site. If the resample shows a result less than or equal to 15 ppb, the water system shall then collect a second repeat sample within 10 business days of the first resample.

The water system shall collect at least one additional lead sample at each sample site where the school has completed some corrective action following an initial lead sample greater than 15 ppb. If the additional lead sample collected after completing some corrective action is at or below 15 ppb, the water system may discontinue lead sampling at the sample site. (Examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.) The water system is responsible for the cost of the samples, but not for any maintenance or corrective actions needed at the school.

6. The water system shall not release school lead sampling results to the public until at least 60 days after receipt of the results of the initial round of lead sampling and only after the water system has first discussed the results with the school. The water system is required to discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory. Following the 60-day period, the water system may post the school lead sampling results on their website.

   The water system shall include a statement to summarize the lead sampling at all schools served by the public water system within the annual Consumer Confidence Report to customers. The statement shall include the number of schools sampled and a link to the DDW Lead Sampling in California Schools website, which contains the results of the school lead sampling. All state regulations applicable to the content and distribution of the Consumer Confidence Report remain the same.

7. The authorized school representative may only request the lead sampling assistance outlined in this permit amendment one-time for each school. For each requested school, the water system is not obligated to continue to provide lead sampling assistance after the conditions of this permit amendment are satisfied.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Condition 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Condition 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Condition 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: ***12/20/2016***

Sutida Bergquist
Central District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, or Thursday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.

9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results and prepare a corrective action plan within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.

6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in

reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

The school should prepare a Corrective Action Plan in coordination with the water system within 10 days of receiving the initial sample test results. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3T references listed in the SWRCB *Frequently Asked Questions about Lead Testing of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3T documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3T Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Recording date and time of sample; Location map for sites selected for testing; Documentation of routine, interim, and permanent actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Deck
Executive Director
Bellflower - Somerset MWC
10016 Flower St.
Bellflower, CA 90706

Dear Ken Deck:

System No: 1910013 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower - Somerset MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910013 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910013 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Bellflower - Somerset MWC

Los Angeles County
System No. 1910013

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower - Somerset MWC
Public Water System No. *1910013*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BELMONT WATER CORPORATION
Public Water System No. *1000004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Garry Solmonson, President
Best Road Mutual Water Company, System No. 3500823
550 Heatherwood Estates Drive
Hollister, CA. 95023

Dear Mr. Solmonson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Best Road Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BEST ROAD MUTUAL WATER COMPANY

(Public Water System No. *3500823*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Donald Slayton
President
Beverly Grand Mutual Water, System No. 5400651
1301 Poplar Street
Arroyo Grande, CA 93420

Dear: Donald Slayton

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beverly Grand Mutual Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beverly Grand Mutual Water
(Public Water System No. 5400651)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Trish Rhay
Assistant Director
Beverly Hills-City, Water Dept.
345 Foothill Road
Beverly Hills, CA 90210

Dear Trish Rhay:

System No. 1910156- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beverly Hills-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beverly Hills-City, Water Dept.
Public Water System No. *1910156*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jim Moore, Manager
Big Basin Water Company, System No. 4410001
PO Box 197
Boulder Creek, CA. 95006

Dear Mr. Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Big Basin Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIG BASIN WATER COMPANY
(Public Water System No. *4410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Scott Heule, General Manager
Big Bear City CSD
System No. 3610008
139 E. Big Bear Blvd.
Big Bear City, CA 92314

Dear: Scott Heule,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Big Bear City CSD
(Public Water System No. *3610008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Fawnskin
System No. 3610022
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Fawnskin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Fawnskin
(Public Water System No. *3610022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Big Bear Lake/Moonridge
System No. 3610044
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Big Bear Lake/Moonridge water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Big Bear Lake/Moonridge
(Public Water System No. *3610044*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Sugarloaf/Erwin Lake
System No. 3610061
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Sugarloaf/Erwin Lake water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Sugarloaf/Erwin Lake
(Public Water System No. *3610061*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIG CREEK COMMUNITY SERV DIST
Public Water System No. *1000005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bryanna Vaughan, Board President
Big Pine CSD
System No. 1410006
P.O. Box 639
Big Pine, CA 93513

Dear: Bryanna Vaughan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Big Pine CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Big Pine CSD
(Public Water System No. *1410006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Marina D. West, General Manager
BDVWA - Goat Mountain Id
System No. 3610060
622 S. Jemez Trail
Yucca Valley, CA 92284

Dear: Marina D. West,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BDVWA - Goat Mountain Id water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BDVWA - Goat Mountain Id
(Public Water System No. *3610060*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Marina D. West, General Manager
Bighorn - Desert View Water Agency
System No. 3610009
622 S. Jemez Trail
Yucca Valley, CA 92284

Dear: Marina D. West,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bighorn - Desert View Water Agency water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bighorn - Desert View Water Agency
(Public Water System No. *3610009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIOLA COMMUNITY SERVICES DIST
Public Water System No. *1010049*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_105**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910021

Felix Hernandez, Manager
Bodega Bay Public Utility District
P.O. Box 70
Bodega Bay, CA 94923

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910021

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Felix Hernandez:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Bodega Bay Public Utility District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910021

cc: Sonoma County Environmental Health Department (email)

4910021/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bodega Bay Public Utility District
(Public Water System No. 4910021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910021/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ.
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110005

Jennifer Blackman, General Manager
Bolinas Community PUD
P.O. Box 390
Bolinas, CA 94924

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jennifer Blackman:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Bolinas Community PUD (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110005

cc: Belle Wood, Administrative Assistant, P.O. Box 390, Bolinas, CA 94924
Marin County Environmental Health Department (email)

2110005/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bolinas Community PUD
(Public Water System No. 2110005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Peter Lopez, General Manager
Boron Community Services District
P.O. Box 1060
Boron, CA 93516

Dear Mr. Lopez:

ISSUANCE OF PERMIT AMENDMENT: 1510002-2017PA_SCHOOLS (System No. 1510002)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Boron Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510002-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Natalie Dadey, Boron CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Boron Community Services District
(Public Water System No. 1510002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510002-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jerry Rolwing
General Manager
Borrego Water District, System No. 3710036
PO BOX 1870
Borrego Springs, CA 92004

Dear Jerry Rolwing:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Borrego Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Borrego Water District
(Public Water System No. *3710036*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ronald Marks
Acting Board President
Box Springs Mutual Water Company, System No. 3310004
21740 Dracaea Ave.
Moreno Valley, CA 92553

Dear Ronald Marks:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Box Springs Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Box Springs Mutual Water Company
(Public Water System No. 3310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900545

Ivan Lukrich, President
Branger Mutual Water Company, Inc.
P.O. Box 2354
Santa Rosa, CA 95405

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900545

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ivan Lukrich:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Branger Mutual Water Company, Inc. (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900545

cc: Sonoma County Environmental Health Department (email)

4900545/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Branger Mutual Water Company, Inc.
(Public Water System No. 4900545)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900545/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Rosanna Moore
Interim Public Works Director
City of Brawley, System No. 1310001
180 South Western Avenue
Brawley, CA 92227

Dear Rosanna Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brawley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brawley
(Public Water System No. *1310001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Renn Nolan, Manager
Bridgeport PUD
System No. 2610003
P. O. Box 473
Bridgeport, CA 93517

Dear: Renn Nolan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bridgeport PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bridgeport PUD
(Public Water System No. *2610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BRITZ/COLUSA
Public Water System No. *1009023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_070**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BRITZ/FIVE POINT SYSTEM
Public Water System No. *1009179*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_080**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

ROSE HESS
PUBLIC WORKS DIRECTOR
BUELLTON WATER DEPARTMENT, System No. 4210018
PO Box 1819
BUELLTON, CA 93427

Dear: ROSE HESS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BUELLTON WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

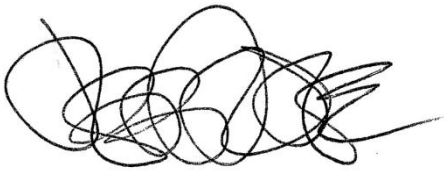

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BUELLTON WATER DEPARTMENT
(Public Water System No. *4210018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

337. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

338. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

339. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

340. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

341. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

342. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

343. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

344. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

379. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

380. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

381. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

382. The water system may stop lead sampling at a school if:

mmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppppp. If requested in writing by the school's authorized school representative.

383. The water system is responsible for the following costs:

gggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

384. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

385. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

386. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ccccccccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ddddddddd. The date of the request;

eeeeeeeee. The date of the initial meeting;

fffffffff. The date of the sampling plan along with a copy of each sampling plan; and

ggggggggg. The date of initial lead sampling and all repeat samples.

387. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Burney Water District
(Public Water System No. 4510003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Jesus Campos
President
BUTTE CITY COMMUNITY S.D., System No. 1100711
P.O. Box 124
BUTTE CITY, CA 95920

Dear : Jesus Campos

ISSUANCE OF PERMIT AMENDMENT 010293P11043A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BUTTE CITY COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

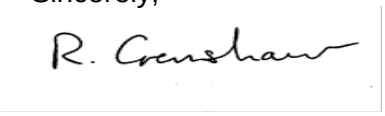

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P11043A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BUTTE CITY COMMUNITY S.D.
(Public Water System No. *1100711*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P11043A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Board of Directors
Buttonwillow County Water District, System No. 1510011
P.O. Box 274
Buttonwillow, CA 93206

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Buttonwillow County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Buttonwillow County Water District
(Public Water System No. *1510011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Calvin Louie
General Manager
Cabazon Water District, System No. 3310047
14618 Broadway St.
Cabazon, CA 92230

Dear Calvin Louie:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cabazon Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cabazon Water District
(Public Water System No. 3310047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 20, 2017

Art Castillo
Water System Operator
CACHEVILLE SERVICE DIST, System No. 5700700
P O BOX 268
YOLO CA 95697

Dear : Mr. Castillo,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Yolo County Environmental Health Divison, delegated by the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cacheville Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chelsea Brown
Environmental Health Specialist
Yolo County Environmental Health Division

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cacheville Service District
(Public Water System No. 5700700)

By The

Yolo County Environmental Health Division

Delegated By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jianmin Huang, REHS
Supervising Environmental Health Specialist

Chelsea Brown, EHS
Environmental Health Specialist I

Dated: 1/17/2017

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Ambler Park, System No. 2710006
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Ambler Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - AMBLER PARK
(Public Water System No. *2710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Bishop, System No. 2701882
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Bishop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - BISHOP
(Public Water System No. *2701882*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Chualar, System No. 2701202
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Chualar water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - CHUALAR
(Public Water System No. *2701202*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Hidden Hills, System No. 2710022
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Hidden Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - HIDDEN HILLS
(Public Water System No. *2710022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Monterey, System No. 2710004
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Monterey water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - MONTEREY
(Public Water System No. *2710004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Toro, System No. 2710021
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Toro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - TORO
(Public Water System No. *2710021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SALDIVAR
OPERATIONS MANAGER
CAL AMERICAN WATER CO, System No. 5610040
2439 West Hillcrest Drive
NEWBURY PARK, CA 91320

Dear: RICHARD SALDIVAR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL AMERICAN WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

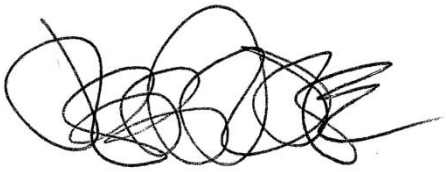

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AMERICAN WATER CO
(Public Water System No. *5610040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

777. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

778. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

779. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

780. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

781. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

782. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

783. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

784. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

874. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

875. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

876. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

877. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

878. The water system is responsible for the following costs:

mmmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

879. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

880. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

881. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrrrrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssssssssssssssssss. The date of the request;

tttttttttttttttttt. The date of the initial meeting;

uuuuuuuuuuuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvvvvvvvvvvv. The date of initial lead sampling and all repeat samples.

882. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SALDIVAR
OPERATIONS MANAGER
CAL AMERICAN WC - LAS POSAS ESTATES, System No. 5610081
2439 West Hillcrest Drive
NEWBURY PARK, CA 91320

Dear: RICHARD SALDIVAR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL AMERICAN WC - LAS POSAS ESTATES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AMERICAN WC - LAS POSAS ESTATES

(Public Water System No. *5610081*)

By The

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Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

973. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

974. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

975. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

976. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttttttt. If requested in writing by the school's authorized school representative.

977. The water system is responsible for the following costs:

iiiiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

978. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

979. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

980. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuuuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvvvvvvvvvvvv. The date of the request;

wwwwwwwwwwwwwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxxxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyyyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

981. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL FIRE-MIRAMONTE CONSERVATION CAMP
Public Water System No. *1010800*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_112**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC King City, System No. 2710009
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC King City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC KING CITY
(Public Water System No. *2710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Las Lomas, System No. 2710013
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Las Lomas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC LAS LOMAS
(Public Water System No. *2710013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Oak Hills, System No. 2710019
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Oak Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC OAK HILLS
(Public Water System No. *2710019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Salinas Hills, System No. 2710012
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Salinas Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC SALINAS HILLS
(Public Water System No. *2710012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Salinas, System No. 2710010
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Salinas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC SALINAS
(Public Water System No. *2710010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James
Director of Water Quality
California Water Service Company – Stockton, System No. 3910001
1720 North 1st St.
San Jose, CA 95112

Dear Ms. James,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Company – Stockton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Company – Stockton
(Public Water System No. 3910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Chris Mattis
Operations Manager
California American Water - Coronado, System No. 3710001
1025 Palm Avenue
Imperial Beach, CA 91932

Dear Chris Mattis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California American Water - Coronado water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California American Water - Coronado
(Public Water System No. *3710001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910023

Margaret Digenova, Oper Superintendent
California-American Larkfield (PUC)
4787 Old Redwood Highway
Santa Rosa, CA 95403

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Margaret Digenova:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the California-American Larkfield (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910023

cc: Audie Foster, General Manager, 4701 Beloit Drive, Sacramento, CA 95838
Sonoma County Environmental Health Department (email)

4910023/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Larkfield (PUC)
(Public Water System No. 4910023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910023/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Garry Hofer
Director Of Operations
Cal/Am Water Company - Baldwin Hills
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910052 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal/Am Water Company - Baldwin Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910052 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910052 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal/Am Water Company - Baldwin Hills

Los Angeles County
System No. 1910052

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal/Am Water Company - Baldwin Hills
Public Water System No. *1910052*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Garry Hofer
Director Of Operations
Cal-Am Water Company - Duarte
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910186 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal-Am Water Company - Duarte water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910186 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910186 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal-Am Water Company - Duarte

Los Angeles County
System No. 1910186

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal-Am Water Company - Duarte
Public Water System No. *1910186*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Garry Hofer
Director Of Operations
Cal/Am Water Company - San Marino
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910139 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal/Am Water Company - San Marino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910139 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910139 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal/Am Water Company - San Marino

Los Angeles County
System No. 1910139

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal/Am Water Company - San Marino
Public Water System No. *1910139*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Copper Cove, System No. 0510017
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Copper Cove water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Copper Cove
(Public Water System No. 0510017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Ebbetts Pass, System No. 0510016
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Ebbetts Pass water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Ebbetts Pass
(Public Water System No. 0510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Jenny Lind, System No. 0510006
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Jenny Lind water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Jenny Lind
(Public Water System No. 0510006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – West Point, System No. 0510005
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – West Point water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – West Point
(Public Water System No. 0510005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donna Leatherman
District Manager
Calaveras Public Utility District, System No. 0510002
P.O. Box 666
San Andreas, CA 95249

Dear: Ms. Leatherman,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Calaveras Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras Public Utility District
(Public Water System No. 0510002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Nick Finley
Acting City Manager
City of Calexico, System No. 1310002
608 Heber Avenue
Calexico, CA 92231

Dear Nick Finley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Calexico water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Calexico
(Public Water System No. *1310002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark R. Miller
Director Facilities
Calif State Polytechnical Univ - Pomona
3801 West Temple Avenue Facilities Management
Pomona, CA 91768

Dear Mark R. Miller:

System No. 1910022- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Calif State Polytechnical Univ - Pomona water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calif State Polytechnical Univ - Pomona
Public Water System No. *1910022*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - Bear Gulch, System No. 4110006
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - Bear Gulch water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Bear Gulch
(Public Water System No. *4110006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Dominguez
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910033- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Dominguez water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Dominguez
Public Water System No. *1910033*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - ELA
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910036- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - ELA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - ELA
Public Water System No. *1910036*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Herm/Redo
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910134- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Herm/Redo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Herm/Redo
Public Water System No. *1910134*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Palos Verdes
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910104- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Palos Verdes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Palos Verdes
Public Water System No. *1910104*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co-Leona Valley
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910243- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co-Leona Valley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co-Leona Valley
Public Water System No. *1910243*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SOPHIE JAMES
DIRECTOR OF WQ
CALIFORNIA WATER SERVICE CO - WESTLAKE, System No. 5610016
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear: SOPHIE JAMES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CALIFORNIA WATER SERVICE CO - WESTLAKE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

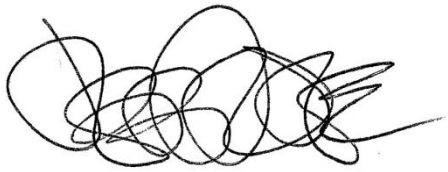

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CALIFORNIA WATER SERVICE CO - WESTLAKE
(Public Water System No. *5610016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

681. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

682. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

683. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

684. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

685. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

686. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

687. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

688. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

766. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

767. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

768. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

769. The water system may stop lead sampling at a school if:

cccccccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffffff. If requested in writing by the school's authorized school representative.

770. The water system is responsible for the following costs:

ooooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

771. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

772. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

773. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjjjjjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkkkkkkkkkkkk. The date of the request;

lllllllllllllllll. The date of the initial meeting;

mmmmmmmmmmmmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnnnnnnnnnnnn. The date of initial lead sampling and all repeat samples.

774. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - Los Altos Suburban, System No. 4310001
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - Los Altos Suburban water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Los Altos Suburban
(Public Water System No. *4310001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - San Carlos, System No. 4110007
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - San Carlos water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - San Mateo, System No. 4110008
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - San Mateo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - San Mateo
(Public Water System No. *4110008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - South San Francisco, System No. 4110009
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - South San Francisco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - South San Francisco
(Public Water System No. *4110009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410031

Audie Foster
General Manager
California-American Water Company – Antelope, System No. 3410031
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410031

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Antelope public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410031

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Antelope
Public Water System
(Public Water System No. 3410031)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410031**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410045

Audie Foster
General Manager
California-American Water Company – Arden, System No. 3410045
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410045

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Arden public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410045

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Arden
Public Water System
(Public Water System No. 3410045)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410045**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410012

Audie Foster
General Manager
California-American Water Company – Isleton, System No. 3410012
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Isleton public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410012

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Isleton
Public Water System
(Public Water System No. 3410012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410012**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 19, 2017 PWS No. 3410013

Audie Foster
General Manager
California-American Water Company – Lincoln Oaks, System No. 3410013
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company – Lincoln Oaks public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410013

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company – Lincoln Oaks
Public Water System
(Public Water System No. 3410013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410013**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410017

Audie Foster
General Manager
California-American Water Company – Parkway, System No. 3410017
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410017

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Parkway public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

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cc: Sacramento County Environmental Management Department (email)

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 3410010

Audie Foster
General Manager
California-American Water Company – Suburban, System No. 3410010
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company – Suburban public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410010

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Rosemont
Public Water System
(Public Water System No. 3410010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410010**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3110150

Audie Foster
General Manager
California American Water Company – West Placer, System No. 3110150
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3110150

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California American Water Company – West Placer public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3110150

cc: Placer County Environmental Health (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California American Water Company – West Placer
Public Water System
(Public Water System No. 3110150)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3110150**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710013

John Hamner, General Manager
Callayomi County Water District
P.O. Box 623
Middletown, CA 95461

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Hamner:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Callayomi County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710013

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Callayomi County Water District
(Public Water System No. 1710013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SUSAN MULLIGAN
GENERAL MANAGER
CALLEGUAS MUNICIPAL WATER DIST, System No. 5610050
2100 OLSEN ROAD
THOUSAND OAKS, CA 91360

Dear: SUSAN MULLIGAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CALLEGUAS MUNICIPAL WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

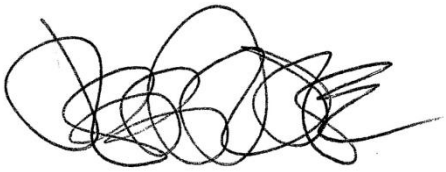

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CALLEGUAS MUNICIPAL WATER DIST
(Public Water System No. *5610050*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

801. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

802. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

803. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

804. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

805. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

806. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

807. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

808. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

901. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

902. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

903. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

904. The water system may stop lead sampling at a school if:

kkkkkkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

905. The water system is responsible for the following costs:

sssssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttttttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

906. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

907. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

908. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggggggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhhhhhhhhhhhh. The date of the request;

iiiiiiiiiiiiiiiiiii. The date of the initial meeting;

jjjjjjjjjjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkkkkkkkkkkkkk. The date of initial lead sampling and all repeat samples.

909. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-CHICO, System No. 410002
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 66-5A21

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-CHICO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

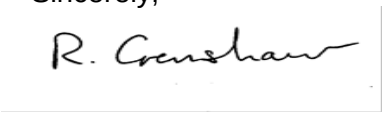

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 66-5A21

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-CHICO
(Public Water System No. *410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***66-5A21***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-HAMILTON CITY, System No. 1110002
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 77-039A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-HAMILTON CITY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

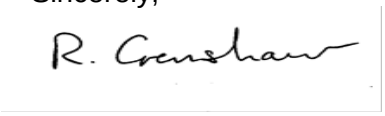

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-039A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-HAMILTON CITY
(Public Water System No. *1110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-039A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-MARYSVILLE, System No. 5810001
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 67-31A10

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-MARYSVILLE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

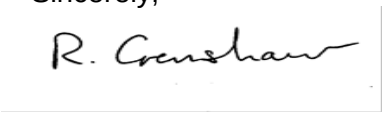

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 67-31A10

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-MARYSVILLE
(Public Water System No. *5810001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***67-31A10***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-OROVILLE, System No. 410005
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 75-012A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-OROVILLE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

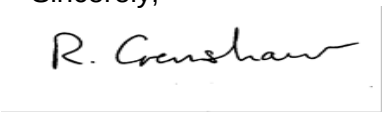

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 75-012A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-OROVILLE
(Public Water System No. *410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***75-012A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-WILLOWS, System No. 1110003
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 65-137A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-WILLOWS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

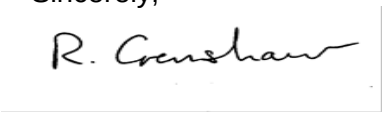

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 65-137A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-WILLOWS
(Public Water System No. *1110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***65-137A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

RICK DIERKSEN
WATER SUPERINTENDENT
CAMARILLO WATER DEPT, System No. 5610019
601 CARMEN DRIVE
CAMARILLO, CA 93010

Dear: RICK DIERKSEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMARILLO WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMARILLO WATER DEPT
(Public Water System No. *5610019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

705. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

706. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

707. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

708. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

709. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

710. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

711. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

712. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

793. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

794. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

795. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

796. The water system may stop lead sampling at a school if:

oooooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

797. The water system is responsible for the following costs:

uuuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

798. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

799. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

800. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyyyyyyyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzzzzzzzzzzzz. The date of the request;

aaaaaaaaaaaaaaaaa. The date of the initial meeting;

bbbbbbbbbbbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

ccccccccccccccccc. The date of initial lead sampling and all repeat samples.

801. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JERRY GRUBER
GENERAL MANAGER
CAMBRIA COMM SERVICES DIST, System No. 4010014
P.O. Box 65
CAMBRIA, CA 93428

Dear: JERRY GRUBER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMBRIA COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMBRIA COMM SERVICES DIST
(Public Water System No. *4010014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

121. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

122. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

123. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

124. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

125. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

126. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

127. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

128. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

136. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

137. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

138. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

139. The water system may stop lead sampling at a school if:

iii. All initial samples are less than or equal to 15 ppb; or

jjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lll. If requested in writing by the school's authorized school representative.

140. The water system is responsible for the following costs:

ee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

141. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

142. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

143. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyy. The date of the request;

zzz. The date of the initial meeting;

aaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbb. The date of initial lead sampling and all repeat samples.

144. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMDEN TRAILER PARK
Public Water System No. *1000238*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_032**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Licuti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Erika Marx
Drinking Water Section Head
Camp Pendleton (North), System No. 3710700
MCIWEST-Marine Corps Base (Bldg. 22165) Box 555008
Camp Pendleton, CA 92055

Dear Ms. Marx:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Camp Pendleton (North) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Camp Pendleton (North)
(Public Water System No. 3710700)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Erika Marx
Drinking Water Section Head
Camp Pendleton (South), System No. 3710702
MCIWEST-Marine Corps Base (Bldg. 22165) Box 555008
Camp Pendleton, CA 92055

Dear Ms. Marx:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Camp Pendleton (South) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Camp Pendleton (South)
(Public Water System No. 3710702)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Daniel Brogadir
Manager
Campo Hills Water System, System No. 3710047
5500 Overland Ave., Suite 315
San Diego, CA 92123

Dear Daniel Brogadir:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Campo Hills Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Campo Hills Water System
(Public Water System No. *3710047*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMPTONVILLE COMMUNITY SERVICE DISTRICT
(Public Water System No. 5800924)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017-01-5800924** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 19, 2017

Clark Allen Pickell, REHS
Yuba County Environmental Health Dept.
Director Environmental Health

January 17, 2017

TONY STAFFORD
GENERAL MANAGER
CAMROSA WATER DISTRICT, System No. 5610063
7385 SANTA ROSA ROAD
CAMARILLO, CA 93012

Dear: TONY STAFFORD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMROSA WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

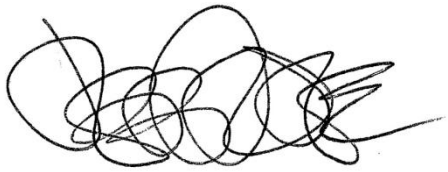

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMROSA WATER DISTRICT
(Public Water System No. *5610063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

833. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

834. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

835. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

836. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

837. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

838. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

839. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

840. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

937. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

938. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

939. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

940. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

cccccccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddddddddddddd. If requested in writing by the school's authorized school representative.

941. The water system is responsible for the following costs:

aaaaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

942. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

943. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

944. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbbbbbbbbbbb. The date of the request;

cccccccccccccccccccc. The date of the initial meeting;

ddddddddddddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeeeeeeeeeeee. The date of initial lead sampling and all repeat samples.

945. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Waxer, Vice President
Canada Woods WC, System No. 2702588
PO BOX 450
Carmel, CA. 93921

Dear Mr. Waxer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Canada Woods WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CANADA WOODS WATER COMPANY
(Public Water System No. *2702588*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CANTUA CREEK VINEYARDS, IV, LLC.
Public Water System No. *1009051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_074**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Wendy Chambers
General Manager
Carlsbad Municipal Water District, System No. 3710005
5950 El Camino Real
Carlsbad, CA 92008

Dear Wendy Chambers:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Carlsbad Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Carlsbad Municipal Water District
(Public Water System No. *3710005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410004

Steve Nugent
General Manager
Carmichael Water District, System No. 3410004
7837 Fair Oaks Blvd.
Carmichael, CA 95608

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Carmichael Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410004

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Carmichael Water District
Public Water System
(Public Water System No. 3410004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410004**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT MCDONALD
GENERAL MANAGER
CARPINTERIA VALLEY WATER DISTRICT, System No. 4210001
1301 Santa Ynez Avenue
CARPINTERIA, CA 93013

Dear: ROBERT MCDONALD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CARPINTERIA VALLEY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

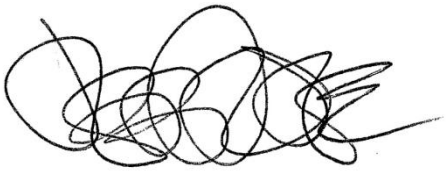

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CARPINTERIA VALLEY WATER DISTRICT
(Public Water System No. *4210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

233. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

234. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

235. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

236. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

237. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

238. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

239. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

240. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

262. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

263. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

264. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

265. The water system may stop lead sampling at a school if:

mmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppp. If requested in writing by the school's authorized school representative.

266. The water system is responsible for the following costs:

ggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

267. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

268. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

269. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqq. The date of the request;

rrrrrr. The date of the initial meeting;

ssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttt. The date of initial lead sampling and all repeat samples.

270. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CARUTHERS COMM SERV DIST
Public Water System No. *1010039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_103**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Board of Directors
Casa Loma Water Co, Inc., System No. 1510004
1016 Lomita Drive
Bakersfield, CA 93307

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Casa Loma Water Co, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Casa Loma Water Co, Inc.
(Public Water System No. *1510004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE WICKSTRUM
GENERAL MANAGER
CASITAS MUNICIPAL WATER DIST, System No. 5610024
1055 VENTURA AVENUE
OAKVIEW, CA 93022

Dear: STEVE WICKSTRUM

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASITAS MUNICIPAL WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASITAS MUNICIPAL WATER DIST
(Public Water System No. *5610024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

745. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

746. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

747. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

748. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

749. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

750. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

751. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

752. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

838. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

839. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

840. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

841. The water system may stop lead sampling at a school if:

iiiiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllllllllll. If requested in writing by the school's authorized school representative.

842. The water system is responsible for the following costs:

eeeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

843. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

844. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

845. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxxxxxxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyyyyyyyyyyyy. The date of the request;

zzzzzzzzzzzzzzzzzz. The date of the initial meeting;

aaaaaaaaaaaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbbbbbbbbbbb. The date of initial lead sampling and all repeat samples.

846. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE BURCH
PRESIDENT
CASITAS MUTUAL WATER COMPANY, System No. 5601104
PO Box 415
OAK VIEW, CA 93022

Dear: DAVE BURCH

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASITAS MUTUAL WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

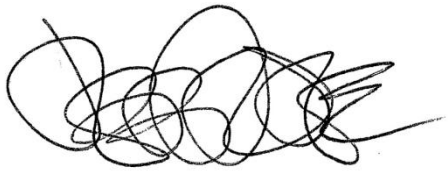

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASITAS MUTUAL WATER COMPANY
(Public Water System No. *5601104*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

393. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

394. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

395. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

396. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

397. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

398. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

399. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

400. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

442. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

443. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

444. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

445. The water system may stop lead sampling at a school if:

oooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

c. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrr. If requested in writing by the school's authorized school representative.

446. The water system is responsible for the following costs:

uuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

447. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

448. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

449. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmm. The date of the request;

nnnnnnnnnn. The date of the initial meeting;

oooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppp. The date of initial lead sampling and all repeat samples.

450. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Casmalia Community Services District
(Public Water System No. 4200870)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2018PA-SCHOOLS** EFFECTIVE DATE**: February 22, 2018**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website. (This permit was issued to the water system after this deadline, so this requirement must be met by March 31, 2018 instead).

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 2/22/2018

Deanna Talerico
Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

System No.: 2410700
January 17, 2017

SCOTT MALTA, MANAGER
CASTLE AIRPORT
1900 Airdrome Entry
ATWATER, CA 95301

Dear SCOTT MALTA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASTLE AIRPORT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASTLE AIRPORT
(Public Water System No.: *2410700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

209. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

210. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

211. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

212. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

213. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

214. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

215. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

216. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

235. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

236. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

237. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

238. The water system may stop lead sampling at a school if:

aaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

liii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

liv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddd. If requested in writing by the school's authorized school representative.

239. The water system is responsible for the following costs:

aaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

240. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

241. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

242. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbb. The date of the request;

cccccc. The date of the initial meeting;

dddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeee. The date of initial lead sampling and all repeat samples.

243. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

417. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
418. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
419. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
420. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
421. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
422. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
423. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

424. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
425. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
426. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
427. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
428. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
429. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
430. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
431. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
432. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

183. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
184. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
185. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

186. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
187. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
188. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
189. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

131. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
132. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
133. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
134. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
135. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
83. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
84. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

85. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

183. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
184. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
185. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
186. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
187. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
188. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
189. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0105008

Dan Martin
Utilities Superintendent
Castlewood Domestic Water System
PO Box 520
Pleasanton, CA 94566-0802

Dear Dan Martin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Castlewood Domestic Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Castlewood Domestic Water System
(Public Water System No. *CA0105008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Tynan, General Manager
Castroville Community Services District, System No. 2710005
11499 Geil Street
Castroville, CA. 95012

Dear Mr. Tynan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Castroville Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASTROVILLE COMMUNITY SERVICES DISTRICT
(Public Water System No. *2710005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900508

Jim Berry, President
Cazadero Water Company, Inc.
P.O. Box 423 6500 Cazadero Highway
Cazadero, CA 95421

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900508

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Berry:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cazadero Water Company, Inc. (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900508

cc: Jana Edmondson, P.O. Box 423, Cazadero, CA 95421
Sonoma County Environmental Health Department (email)

4900508/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cazadero Water Company, Inc.
(Public Water System No. 4900508)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900508/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Mcclellan, General Manager
Cedarpines Park MWC
System No. 3610011
P.O. Box 9259
Cedarpines Park, CA 92322

Dear: David Mcclellan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cedarpines Park MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cedarpines Park MWC
(Public Water System No. *3610011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Centerville C.S.D.
(Public Water System No. 4510011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Paulette Carpenter
Secretary
Central Mutual Water Co., System No. 5400655
P.O. Box 1431
Porterville, CA 93258

Dear: Paulette Carpenter

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Central Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Central Mutual Water Co.
(Public Water System No. 5400655)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ralph Bracamonte, District Manager
Central Water District, System No. 4410018
PO Box 1869
Aptos, CA. 95001

Dear Mr. Bracamonte:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Central Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CENTRAL WATER DISTRICT
(Public Water System No. *4410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JARED BOUCHARD
GENERAL MANAGER
CHANNEL ISLANDS BEACH CSD, System No. 5610039
353 SANTA MONICA DRIVE
CHANNEL ISLAND BEACH, CA 93035

Dear: JARED BOUCHARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CHANNEL ISLANDS BEACH CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHANNEL ISLANDS BEACH CSD
(Public Water System No. *5610039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

769. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

770. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

771. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

772. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

773. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

774. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

775. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

776. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

865. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

866. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

867. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

868. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

869. The water system is responsible for the following costs:

kkkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

870. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

871. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

872. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmmmmmmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnnnnnnnnnnnn. The date of the request;

oooooooooooooooooooo. The date of the initial meeting;

pppppppppppppppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqqqqqqqqqqqq. The date of initial lead sampling and all repeat samples.

873. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Marvin Moskowitz, R.E.H.S.
Director

TEL (760) 878-0238
FAX (760) 878-0239

COUNTY OF INYO

DEPARTMENT OF ENVIRONMENTAL HEALTH SERVICES
P.O. BOX 427, INDEPENDENCE, CALIFORNIA 93526

February 6, 2017

Susan Sorrells
Charles Brown Water Company System No. 1400004
P O Box 67
Shoshone, CA 92384

Dear Susan Sorrells:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Inyo County Environmental Health for the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Charles Brown Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kathe Barton

Kathe Barton, REHS
Inyo County Environmental Health
Local Primacy Agency

Enclosure: 2017PA_Schools

cc: DDW San Bernardino District Office

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHARLES BROWN WATER COMPANY
(Public Water System No. 1400004)

By The

Inyo County Environmental Health

For The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **February 6, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 2/6/17

Kathe Barton

Kathe Barton, REHS
Inyo County Environmental Health
Local Primacy Agency

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Chester Public U.D.
(Public Water System No. 3210009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

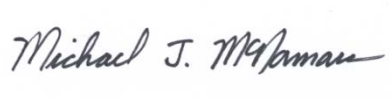

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Bizon, Operator
China Lake Naval Air Weapons Station
429 E. Bowen Road Stop 4007, PR2325
China Lake, CA 93555-6108

Dear Mr. Bizon:

ISSUANCE OF PERMIT AMENDMENT: 1510703-2017PA_SCHOOLS (System No. 1510703)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the China Lake Naval Air Weapons Station water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510703-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

China Lake Naval Air Weapons Station
(Public Water System No. 1510703)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510703-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010001
January 17, 2017

CRAIG LOCKE, CITY ENGINEER
CHOWCHILLA CITY WATER DEPT
130 S. Second Street
CHOWCHILLA, CA 93610

Dear CRAIG LOCKE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CHOWCHILLA CITY WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHOWCHILLA CITY WATER DEPT
(Public Water System No.: *2010001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

9. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

10. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

11. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

12. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

13. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

14. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

15. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

16. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

10. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

11. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

12. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

13. The water system may stop lead sampling at a school if:

e. All initial samples are less than or equal to 15 ppb; or

f. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

iii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

iv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

g. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

h. If requested in writing by the school's authorized school representative.

14. The water system is responsible for the following costs:

c. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

d. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

15. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

16. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

17. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    f. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    g. The date of the request;

    h. The date of the initial meeting;

    i. The date of the sampling plan along with a copy of each sampling plan; and

    j. The date of initial lead sampling and all repeat samples.

18. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

17. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
18. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
19. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
20. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
21. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
22. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
23. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

24. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
25. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
26. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
27. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
28. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
29. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
30. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
31. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
32. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

8. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
9. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
10. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

11. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
12. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
13. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
14. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

6. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
7. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
8. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
9. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
10. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
8. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
9. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

10. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

8. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
9. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
10. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
11. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
12. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
13. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
14. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Jeff Farrow
Christian Encounters Ministries Water System, System No. 2900541
P.O. Box 1022
Grass Valley, CA. 95945

Dear: Mr. Farrow

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-541

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Christian Encounter Ministries water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Daniel Ellestad (email)
Cranmer Engineering Inc.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Christian Encounter Ministries
for
Christian Encounter Ministries Water System
(Public Water System No.2900541)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-541** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410006

Robert Churchill
General Manager
Citrus Heights Water District, System No. 3410006
6230 Sylvan Road
Citrus Heights, CA 95610

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Citrus Heights Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410006

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Citrus Heights Water District
Public Water System
(Public Water System No. 3410006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410006**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300731

Craig Cassin, Water System Operator
City Of 10,000 Buddhas
P.O. Box 217
Talmage, CA 95481

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300731

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Cassin:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the City Of 10,000 Buddhas (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300731

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of 10,000 Buddhas
(Public Water System No. 2300731)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300731/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Wilson So, P.E.
City of Adelanto,
System No. 3610001
11600 Air Expressway
Adelanto, CA 92301

Dear: Wilson So,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Adelanto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Adelanto
(Public Water System No. *3610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dennis Ahlen
Deputy Director of Utilities
City of Alhambra
111 S. First St.
Alhambra, CA 91801

Dear: Dennis Ahlen

System No: 1910001 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Alhambra water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910001 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910001 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Alhambra
Public Water System No. *1910001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810005

Steve Moore, Water Systems Manager
American Canyon, City Of
205 Wetlands Edge Road
American Canyon, CA 94503

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Steve Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the American Canyon, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810005

cc: Napa County Environmental Health Department (email)

2810005/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

American Canyon, City Of
(Public Water System No. 2810005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Michael Moore
Asistant General Manager
City of Anaheim, System No. 3010001
201 S. Anaheim Blvd. Suite 601
Anaheim, CA 92805

Dear Mr. Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Anaheim water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Anaheim
(Public Water System No. 3010001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Anderson
(Public Water System No. 4510001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dave Myers
Public Works Director
City of Angels, System No. 0510003
P.O. Box 667
Angels Camp, CA 95222

Dear Mr. Myers,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Angels water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Angels
(Public Water System No. 0510003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710001

Duane Anderson
Water Treatment Superintendent
City of Antioch
Po Box 5007
Antioch, CA 94531-5007

Dear Duane Anderson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Antioch water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Antioch
(Public Water System No. *CA0710001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Paul Cranmer
Deputy Director
City Of Arcadia
11800 Goldring Road
Arcadia, CA 91006

Dear Paul Cranmer:

System No. 1910003- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of Arcadia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of Arcadia
Public Water System No. *1910003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410001
January 17, 2017

BRIAN SHAW, CHIEF OPERATOR
CITY OF ATWATER
470 Aviator Drive
ATWATER, CA 95301

Dear BRIAN SHAW,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF ATWATER water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ATWATER
(Public Water System No.: *2410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

105. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

106. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

107. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

108. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

109. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

110. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

111. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

112. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

118. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

119. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

120. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

121. The water system may stop lead sampling at a school if:

aaa. All initial samples are less than or equal to 15 ppb; or

bbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddd. If requested in writing by the school's authorized school representative.

122. The water system is responsible for the following costs:

aa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

123. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

124. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

125. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ooo. The date of the request;

ppp. The date of the initial meeting;

qqq. The date of the sampling plan along with a copy of each sampling plan; and

rrr. The date of initial lead sampling and all repeat samples.

126. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

209. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
210. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
211. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
212. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
213. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
214. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
215. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

216. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
217. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
218. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
219. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
220. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
221. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
222. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
223. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
224. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

92. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
93. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
94. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

95. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
96. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
97. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
98. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

66. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
67. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
68. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
69. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
70. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
44. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
45. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

46. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

92. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
93. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
94. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
95. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
96. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
97. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
98. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ron Brumley, Utility Supervisor
City of Avenal, System No. 1610002
919 Skyline Boulevard
Avenal, CA 93204

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ron Brumley:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Avenal water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Avenal
(Public Water System No. *1610002*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Art Chianello, Water Resources Manager
City of Bakersfield, System No. 1510031
1000 Buena Vista Road
Bakersfield, CA 93311

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Art Chianello:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Bakersfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Bakersfield
(Public Water System No. *1510031*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Perry Gerdes
Water/ Wastewater Superintendent
City of Banning, System No. 3310006
P.O. Box 998
176 E. Lincoln St.
Banning, CA 92220

Dear Perry Gerdes:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Banning water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Banning
(Public Water System No. 3310006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jim Elliott
Division Chief Engineer
Liberty Utilities - Bell Gardens
9750 Washburn Road
Downey, CA 90241

Dear Jim Elliott:

System No: 1910108 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Bell Gardens water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910108 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910108 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Liberty Utilities - Bell Gardens

Los Angeles County
System No. 1910108

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Bell Gardens
Public Water System No. *1910108*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810001

Christian Di Renzo
Asst. Public Works Director
City of Benicia
250 East L Street
Benicia, CA 94510-3239

Dear Christian Di Renzo:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Benicia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Benicia
(Public Water System No. *CA4810001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Hayden Wasser
Plant Operator
CITY OF BIGGS, System No. 410001
P.O. BOX 307
BIGGS, CA 95917

Dear : Hayden Wasser

ISSUANCE OF PERMIT AMENDMENT 70-028A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF BIGGS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

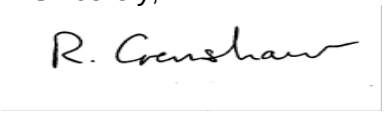

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 70-028A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF BIGGS
(Public Water System No. *410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***70-028A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Grah, Public Works Director
City of Bishop
System No. 1410001
P.O. Box 1236
Bishop, CA 93515

Dear: David Grah,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Bishop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Bishop
(Public Water System No. *1410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Armando Baldizzone
Director of Public Works
City of Blythe, System No. 3310003
440 South Main St.
Blythe, CA 92225

Dear Armando Baldizzone:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Blythe water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Blythe
(Public Water System No. 3310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Rudy Correa
Water Supervisor
City of Brea, System No. 3010002
One Civic Center Circle
Brea, CA 92821

Dear Mr. Correa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brea water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brea
(Public Water System No. 3010002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710004

Eric Brennan
Water Operations Manager
City of Brentwood
2201 Elkins Way
Brentwood, CA 94513-7344

Dear Eric Brennan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brentwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brentwood
(Public Water System No. *CA0710004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Randy Breault
City of Brisbane, System No. 4110002
50 Park Place
Brisbane, CA 94005

Dear Mr. Breault:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brisbane water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brisbane
(Public Water System No. *4110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Mike Grisso
Utilities Manager
City of Buena Park, System No. 3010003
6650 Beach Blvd. P.O. Box 5009
Buena Park, CA 90621

Dear Mr. Grisso:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Buena Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Buena Park
(Public Water System No. 3010003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

William Mace
Assistant GM
Burbank-City, Water Dept.
P.O. Box 631
Burbank, CA 91503

Dear William Mace:

System No: 1910179 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Burbank-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910179 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910179 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Burbank-City, Water Dept.

Los Angeles County
System No. 1910179

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Burbank-City, Water Dept.
Public Water System No. *1910179*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Rob Mallick
City of Burlingame, System No. 4110003
501 Primrose Road
Burlingame, CA 94010

Dear Mr. Mallick:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Burlingame water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Burlingame
(Public Water System No. *4110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Craig Platt, Public Works Director
City of California City
7800 Moss Avenue
California City, CA 93505

Dear CraigPlatt:

ISSUANCE OF PERMIT AMENDMENT: 1510032-2017PA_SCHOOLS (System No. 1510032)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of California City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510032-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Art Van Dang, City of California City (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of California City
(Public Water System No. 1510032)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510032-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810002

Mike Kirn, PW Director
Calistoga, City Of
1232 Washington Street
Calistoga, CA 94515

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Kirn:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Calistoga, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810002

cc: Derek Rayner, City Engineer, 414 Washington Street, Calistoga, CA 94515
Richard Spitler, City Manager, 1232 Washington Street, Calistoga, CA 94515
Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calistoga, City Of
(Public Water System No. 2810002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jeremy Damas
Director of Public Works
City of Ceres, System No. 5010028
2220 Magnolia Street
Ceres, CA 95307

Dear Mr. Damas,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Ceres water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Ceres
(Public Water System No. 5010028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Charles Emig
Water Superintendent
Cerritos - City, Water Dept.
18125 Bloomfield Avenue
Cerritos, CA 90703

Dear: Charles Emig

System No: 1910019 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cerritos - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910019 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910019 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cerritos - City, Water Dept.
Public Water System No. *1910019*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Wiley, Water/Sewer Manager
City of Chino Hills
System No. 3610036
14000 City Center Drive
Chino Hills, CA 91709

Dear: Mark Wiley,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Chino Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Chino Hills
(Public Water System No. *3610036*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Crosley, Manager
City of Chino,
System No. 3610012
P.O. Box 667
Chino, CA 91708

Dear: David Crosley,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Chino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Chino
(Public Water System No. *3610012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910002

Paul Cayler, City Manager
Cloverdale, City Of
124 North Cloverdale Boulevard
Cloverdale, CA 95425

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Cayler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cloverdale, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910002

cc: Sonoma County Environmental Health Department (email)

4910002/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cloverdale, City Of
(Public Water System No. 4910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Koehn, Assistant Public Utility
City of Clovis, System No. 1010003
155 N. Sunnyside Avenue
Clovis, CA 93611

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Lisa Koehn:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Clovis water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Clovis
(Public Water System No. *1010003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF COALINGA
Public Water System No. *1010004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_086**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James Garcia, Water Utility Supervisor
City of Colton,
System No. 3610014
160 S. 10th St.
Colton, CA 92324

Dear: James Garcia,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Colton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Colton
(Public Water System No. *3610014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jesse Cain
Pubworks/Util. Admin
CITY OF COLUSA, System No. 610002
425 Webster St.
COLUSA, CA 95932

Dear : Jesse Cain

ISSUANCE OF PERMIT AMENDMENT 65-20A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF COLUSA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

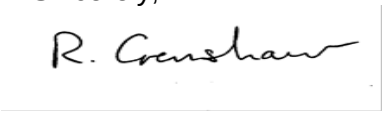

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 65-20A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF COLUSA
(Public Water System No. *610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***65-20A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Joe Faulkner, Public Works Director
City of Corcoran, System No. 1610004
832 Whitley
Corcoran, CA 93212

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joe Faulkner:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Corcoran water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Corcoran
(Public Water System No. *1610004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dawn Grine
PW Director
CITY OF CORNING, System No. 5210001
794 Third Street
CORNING, CA 96021

Dear : Dawn Grine

ISSUANCE OF PERMIT AMENDMENT 73-045A7

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF CORNING water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

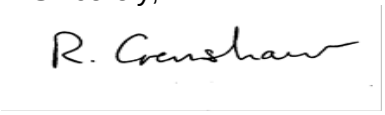

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 73-045A7

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF CORNING
(Public Water System No. *5210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***73-045A7***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Tom Moody
Assistant General Manager
City of Corona, System No. 3310037
755 Public Safety Way
Corona, CA 92880

Dear Tom Moody:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Corona water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Corona
(Public Water System No. 3310037)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910016

Craig Scott, Public Works Director
Cotati, City Of
201 West Sierra Avenue
Cotati, CA 94931

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910016

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Scott:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cotati, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910016

cc: Sonoma County Environmental Health Department (email)

4910016/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cotati, City Of
(Public Water System No. 4910016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910016/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Siobhan Foster
Director Of Public Works
Covina-City, Water Dept.
534 N. Barranca Avenue
Covina, CA 91723

Dear Siobhan Foster:

System No: 1910127 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Covina-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910127 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910127 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Covina-City, Water Dept.

Los Angeles County
System No. 1910127

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Covina-City, Water Dept.
Public Water System No. *1910127*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Francois Rodigari
City of Cupertino/San Jose Water Company, System No. 4310018
1221 A South Bascom Avenue
San Jose, CA 95128

Dear Mr. Rodigari:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Cupertino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Cupertino/San Jose Water Company
(Public Water System No. *4310018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Patrick Sweetland
City of Daly City, System No. 4110013
153 Lake Merced Blvd
Daly City, CA 94015

Dear Mr. Sweetland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Daly City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Daly City
(Public Water System No. *4110013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 5710001

Dianna Jensen
Principal Engineer
City of Davis, System No. 5710001
23 Russell Blvd.
Davis, CA 95616

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Davis public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710001

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Davis
Public Water System
(Public Water System No. 5710001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Roman Dowling, Public Works Director
City of Delano, System No. 1510005
725 S. Lexington Street
Delano, CA 93215

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Roman Dowling:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Delano water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Delano
(Public Water System No. *1510005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Blanca Beltran
Public Works Dir.
Dinuba, City of, System No. 5410002
405 E. El Monte Way
Dinuba, CA 93618

Dear: Blanca Beltran

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dinuba, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dinuba, City of
(Public Water System No. 5410002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810009

Jim Lindley
City Manager
City of Dixon
600 East A St.
Dixon, CA 95620-3697

Dear Jim Lindley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Dixon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Dixon
(Public Water System No. *CA4810009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410002
January 17, 2017

DARRELL FONSECA, CITY MANAGER
CITY OF DOS PALOS
2174 BLOSSOM STREET
DOS PALOS, CA 93620

Dear DARRELL FONSECA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF DOS PALOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF DOS PALOS
(Public Water System No.: *2410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

113. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

114. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

115. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

116. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

117. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

118. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

119. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

120. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

127. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

128. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

129. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

130. The water system may stop lead sampling at a school if:

eee. All initial samples are less than or equal to 15 ppb; or

fff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhh. If requested in writing by the school's authorized school representative.

131. The water system is responsible for the following costs:

cc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

132. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

133. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

134. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ttt. The date of the request;

uuu. The date of the initial meeting;

vvv. The date of the sampling plan along with a copy of each sampling plan; and

www. The date of initial lead sampling and all repeat samples.

135. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

225. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
226. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
227. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
228. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
229. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
230. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
231. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

232. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
233. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
234. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
235. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
236. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
237. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
238. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
239. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
240. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

99. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
100. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
101. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

102. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
103. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
104. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
105. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
73. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
74. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
75. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
47. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
48. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

49. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

99. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
100. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
101. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
102. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
103. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
104. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
105. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
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For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dan Mueller
Utilities Manager
Downey - City, Water Department
11111 Brookshire Ave.
Downey, CA 90241

Dear: Dan Mueller

System No: 1910034 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Downey - City, Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910034 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910034 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Downey - City, Water Department
Public Water System No. *1910034*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Joseph Blake
City of East Palo Alto, System No. 4110024
American Water Enterprises
2415 University Avenue, 2nd Floor
East Palo Alto, CA 94303

Dear Mr. Blake:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of East Palo Alto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of East Palo Alto
(Public Water System No. *4110024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2019

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Richard Ruyle
Utility Manager
El Monte-City, Water Department
11333 Valley Blvd
El Monte, CA 91731

Dear: Richard Ruyle

System No: 1910038 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Monte-City, Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Monte-City, Water Department
Public Water System No. *1910038*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stephanie Katsouleas
Director of Public Works
El Segundo-City, Water Dept.
350 Main Street
El Segundo, CA 90245

Dear Stephanie Katsouleas:

System No: 1910040 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Segundo-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910040 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910040 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

El Segundo-City, Water Dept.

Los Angeles County
System No. 1910040

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Segundo-City, Water Dept.
Public Water System No. *1910040*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Matt Morgan
Chief Operator
City of Escalon, System No. 3910003
2060 McHenry Avenue
Escalon, CA 95320

Dear : Mr. Morgan

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Escalon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Escalon
(Public Water System No. 3910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and/lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daymon Qualls
Public Works Dir.
Exeter, City of, System No. 5410003
P.O. Box 237
Exeter, CA 93221

Dear: Daymon Qualls

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Exeter, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Exeter, City of
(Public Water System No. 5410003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810003

Scott Leland
Water Treatment Manager
City of Fairfield
2900 Vista Grande
Fairfield, CA 94534

Dear Scott Leland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fairfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fairfield
(Public Water System No. *CA4810003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeff Dowlen
Adm. Analyst
Farmersville, City of, System No. 5410004
909 West Visalia Road
Farmersville, CA 93223

Dear: Jeff Dowlen

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Farmersville, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Farmersville, City of
(Public Water System No. 5410004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FIREBAUGH
Public Water System No. *1010005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_087**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017 PWS No. 3410030

Kyle Ericson
System Manager
City of Folsom - Ashland, System No. 3410030
50 Natoma Street
Folsom, CA 95630

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410030

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Folsom - Ashland public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410030

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Folsom - Ashland
Public Water System
(Public Water System No. 3410030)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410030**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410014

Kyle Ericson
System Manager
City of Folsom - Main, System No. 3410014
50 Natoma Street
Folsom, CA 95630

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Folsom - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410014

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Folsom - Main
Public Water System
(Public Water System No. 3410014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410014**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310001

Tom Varga, Public Works Director
Fort Bragg, City Of
416 N. Franklin Street
Fort Bragg, CA 95437

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tom Varga:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Fort Bragg, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310001

cc: Heath Daniels, 416 North Franklin Street, Fort Bragg, CA 95437
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fort Bragg, City Of
(Public Water System No. 2310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Mark Sprague
Utilities Manager
City of Fountain Valley, System No. 3010069
17300 Mt. Herrmann Street
Fountain Valley, CA 92708

Dear Mr. Sprague:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fountain Valley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fountain Valley
(Public Water System No. 3010069)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FOWLER
Public Water System No. *1010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_088**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

System No.: 1010007
January 17, 2017

BUD TICKEL, ACTING WS MANAGER
CITY OF FRESNO
1910 EAST UNIVERSITY AVE.
FRESNO, CA 93703

Dear BUD TICKEL,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF FRESNO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Fresno Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FRESNO
(Public Water System No.: *1010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Hye Jin Lee
Water System Manager
City of Fullerton, System No. 3010010
303 W. Commonwealth Avenue
Fullerton, CA 92832

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fullerton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fullerton
(Public Water System No. 3010010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410011

Dennis Longhofer
Superintendent
City of Galt, System No. 3410011
495 Industrial Drive
Galt, CA 95632

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Galt public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410011

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Galt
Public Water System
(Public Water System No. 3410011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410011**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. William E Murray
Water Services Manager
City of Garden Grove, System No. 3010062
13802 Newhope St.
Garden Grove, CA 92843

Dear Mr. Murray:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Garden Grove water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Garden Grove
(Public Water System No. 3010062)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dan Aldridge
City of Gilroy, System No. 4310004
7351 Rosanna Street
Gilroy, CA 95020

Dear Mr. Aldridge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Gilroy water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Gilroy
(Public Water System No. *4310004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Saenz
Water Quality Manager
Glendale-City, Water Dept.
141 N. Glendale Ave. Level 4
Glendale, CA 91206

Dear James Saenz:

System No: 1910043 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glendale-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910043 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910043 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Glendale-City, Water Dept.

Los Angeles County
System No. 1910043

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glendale-City, Water Dept.
Public Water System No. *1910043*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Steve Patton
Water Division Manager
Glendora-City, Water Dept.
116 East Foothill Blvd.
Glendora, CA 91741

Dear Steve Patton:

System No: 1910044 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glendora-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910044 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

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Los Angeles County
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January 17, 2017

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Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glendora-City, Water Dept.
Public Water System No. *1910044*

By The

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Division of Drinking Water

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7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Harold Wolgamott, Public Works Director
City of Gonzales, System No. 2710007
P.O. Box 647
Gonzales, CA. 93926

Dear Mr. Wolgamott:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Gonzales water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GONZALES
(Public Water System No. *2710007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 2910001

Tim Kiser
Director of Public Works
City of Grass Valley, System No. 2910001
125 E. Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Grass Valley public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910001

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Grass Valley
Public Water System
(Public Water System No. 2910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arturo Felix, Utilities Manager
City of Greenfield, System No. 2710008
PO Box 127
Greenfield, CA. 93927

Dear Mr. Felix:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Greenfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GREENFIELD
(Public Water System No. *2710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jerry Cox
Operator
CITY OF GRIDLEY, System No. 410004
685 KENTUCKY STREET
GRIDLEY, CA 95948

Dear : Jerry Cox

ISSUANCE OF PERMIT AMENDMENT 02-05-1965 A7

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF GRIDLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

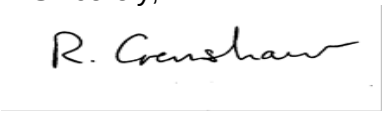

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 02-05-1965 A7

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GRIDLEY
(Public Water System No. *410004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***02-05-1965 A7***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

System No.: 2410003
January 17, 2017

KATHRYN REYES, PW DIRECTOR
CITY OF GUSTINE
P.O. BOX 16
GUSTINE, CA 95322

Dear KATHRYN REYES,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF GUSTINE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GUSTINE
(Public Water System No.: *2410003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

121. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

122. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

123. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

124. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

125. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

126. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

127. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

128. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

136. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

137. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

138. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

139. The water system may stop lead sampling at a school if:

iii. All initial samples are less than or equal to 15 ppb; or

jjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lll. If requested in writing by the school's authorized school representative.

140. The water system is responsible for the following costs:

ee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

141. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

142. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

143. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyy. The date of the request;

zzz. The date of the initial meeting;

aaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbb. The date of initial lead sampling and all repeat samples.

144. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

241. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
242. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
243. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
244. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
245. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
246. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
247. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

248. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
249. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
250. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
251. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
252. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
253. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
254. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
255. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
256. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
108. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

109. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
110. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
111. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
112. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

76. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
77. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
78. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
79. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
80. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
50. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
51. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

52. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
108. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
109. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
110. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
111. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
112. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lou Camara, Public Works Director
City of Hanford, System No. 1610003
900 S. 10th Avenue
Hanford, CA 93230

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Lou Camara:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hanford water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hanford
(Public Water System No. *1610003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110006

Robert Gerena
Utilities Maintenance Supervisor
City of Hayward
24499 Soto Road
Hayward, CA 94544-1430

Dear Robert Gerena:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hayward water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hayward
(Public Water System No. *CA0110006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910005

Terry Crowley, Utility Dept Director
Healdsburg, City Of
401 Grove Street
Healdsburg, CA 95448

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Terry Crowley:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Healdsburg, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910005

cc: Sonoma County Environmental Health Department (email)

4910005/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Healdsburg, City Of
(Public Water System No. 4910005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ron Proze
Water Superintendent
City of Hemet, System No. 3310016
3777 Industrial Ave.
Hemet, CA 92545

Dear Ron Proze:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hemet water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hemet
(Public Water System No. 3310016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Danny Hillstock, Utility Engineer
City of Hollister, System No. 3510001
375 Fifth Street
Hollister, CA. 95023

Dear Mr. Hillstock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hollister water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF HOLLISTER
(Public Water System No. *3510001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jaylen French
Public Works Director
City of Hughson, System No. 5010008
7018 Pine Street, P.O. Box 9
Hughson, CA 95326

Dear Mr. French,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hughson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hughson
(Public Water System No. 5010008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Brian Ragland
Utilities Manager
City of Huntington Beach, System No. 3010053
P.O. Box 190
Huntington Beach, CA 92648

Dear Mr. Ragland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Huntington Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Huntington Beach
(Public Water System No. 3010053)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF HURON
Public Water System No. *1010044*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_104**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/07

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Greg Galindo
General Manager
City Of Industry Waterworks Systems
112. North First Street
La Puente, CA 91744

Dear Greg Galindo:

System No: 1910029 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of Industry Waterworks Systems water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910029 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910029 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

City Of Industry Waterworks Systems

Los Angeles County
System No. 1910029

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of Industry Waterworks Systems
Public Water System No. *1910029*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ismael Perez
Water Treatment Plant Supervisor
Inglewood- City, Water Dept.
One W. Manchester Blvd, P.O. Box 6500 Public Works Dept. 3rd Flr
Inglewood, CA 90301

Dear Ismael Perez:

System No: 1910051 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inglewood- City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910051 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910051 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Inglewood- City, Water Dept.

Los Angeles County
System No. 1910051

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inglewood- City, Water Dept.
Public Water System No. *1910051*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Daly, City Manager
City of Jackson, System No. 0310001
33 Broadway
Jackson, CA 95642

Dear Mr. Daly,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Jackson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Jackson
(Public Water System No. 0310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF KERMAN
Public Water System No. *1010018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_091**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF KINGSBURG
Public Water System No. *1010019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_092**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

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   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

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b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Elias Saykali
Public Works Director
City of La Habra, System No. 3010018
621 W. Lambert Rd
La Habra, CA 90631

Dear Mr. Saykali:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of La Habra water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of La Habra
(Public Water System No. 3010018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Carlo Nafarrete
Maintenance Supervisor
City of La Palma, System No. 3010100
7822 Walker Street
La Palma, CA 90623

Dear Mr. Nafarrete:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of La Palma water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of La Palma
(Public Water System No. 3010100)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daniel Keesey
Director of Public Works
La Verne, City Wd
3660 D Street
La Verne, CA 91750

Dear Daniel Keesey:

System No: 1910062 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Verne, City Wd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910062 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910062 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

La Verne, City Wd

Los Angeles County
System No. 1910062

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Verne, City Wd
Public Water System No. *1910062*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710004

Paul Harris, Utilities Superintendent
Lakeport, City Of
591 Martin Street
Lakeport, CA 95453

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Harris:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lakeport, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710004

cc: Doug Grider, PW Director, 591 Martin Street, Lakeport, CA
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakeport, City Of
(Public Water System No. 1710004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason Wen
Director Of Water Resources
Lakewood - City, Water Dept.
5050 N. Clark Avenue
Lakewood, CA 90712

Dear Jason Wen:

System No: 1910239 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lakewood - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910239 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910239 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Lakewood - City, Water Dept.

Los Angeles County
System No. 1910239

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakewood - City, Water Dept.
Public Water System No. *1910239*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stephen Salvatore
Deputy City Manager
City of Lathrop, System No. 3910015
390 Towne Centre Drive
Lathrop, CA 95330

Dear : Mr. Salvatore

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lathrop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lathrop
(Public Water System No. 3910015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Nathan Olson, Public Works Director
City of Lemoore, System No. 1610005
711 W. Cinnamon Drive
Lemoore, CA 93245

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Nathan Olson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lemoore water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lemoore
(Public Water System No. *1610005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lincoln
(Public Water System No. 3110004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Mike Camarena
Dir. of City Services
Lindsay, City of, System No. 5410006
P.O. Box 369
Lindsay, CA 93247

Dear: Mike Camarena

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lindsay, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lindsay, City of
(Public Water System No. 5410006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Jim Goodwin
City Manager
CITY OF LIVE OAK, System No. 5110001
9955 Live Oak Blvd.
LIVE OAK, CA 95953

Dear : Mr. Jim Goodwin

ISSUANCE OF PERMIT AMENDMENT 010298P51001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LIVE OAK water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

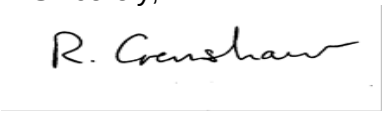

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010298P51001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LIVE OAK
(Public Water System No. *5110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010298P51001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017 PWS No. CA0110011

Helen Ling
Water Resources Manager
City of Livermore
101 W Jack London Blvd
Livermore, CA 94551-7632

Dear Helen Ling:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Livermore water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Livermore
(Public Water System No. *CA0110011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410004
January 17, 2017

TONY AVINA, SUPERINTENDENT
CITY OF LIVINGSTON
1416 C Street
LIVINGSTON, CA 95334

Dear TONY AVINA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LIVINGSTON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LIVINGSTON
(Public Water System No.: *2410004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

129. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

130. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

131. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

132. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

133. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

134. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

135. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

136. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

145. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

146. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

147. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

148. The water system may stop lead sampling at a school if:

mmm. All initial samples are less than or equal to 15 ppb; or

nnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppp. If requested in writing by the school's authorized school representative.

149. The water system is responsible for the following costs:

gg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

150. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

151. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

152. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddd. The date of the request;

eeee. The date of the initial meeting;

ffff. The date of the sampling plan along with a copy of each sampling plan; and

gggg. The date of initial lead sampling and all repeat samples.

153. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

257. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
258. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
259. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
260. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
261. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
262. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
263. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

264. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
265. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
266. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
267. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
268. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
269. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
270. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
271. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
272. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

113. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
114. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
115. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

116. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
117. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
118. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
119. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

81. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
82. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
83. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
84. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
85. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
53. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
54. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

55. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

113. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
114. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
115. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
116. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
117. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
118. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
119. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Andrew Richle
Water Treatment Superintendent
City of Lodi, System No. 3910004
1331 S. Ham Lane
Lodi, CA 95242

Dear : Mr. Richle

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lodi water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lodi
(Public Water System No. 3910004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jarb Thaipjer, Public Works Director
City of Loma Linda,
System No. 3610013
25541 Barton Road
Loma Linda, CA 92354

Dear: Jarb Thaipjer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Loma Linda water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Loma Linda
(Public Water System No. *3610013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Mcavoy
Public Works Director
Lomita-City, Water Dept.
24300 Narbonne Avenue
Lomita, CA 90717

Dear Mark Mcavoy:

System No: 1910073 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lomita-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910073 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910073 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Lomita-City, Water Dept.

Los Angeles County
System No. 1910073

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lomita-City, Water Dept.
Public Water System No. *1910073*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Christopher Garner
General Manager
Long Beach-City, Water Dept.
1800 East Wardlow Road
Long Beach, CA 90807

Dear Christopher Garner:

System No: 1910065 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Long Beach-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910065 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910065 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Long Beach-City, Water Dept.

Los Angeles County
System No. 1910065

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Long Beach-City, Water Dept.
Public Water System No. *1910065*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Albert Gastelum
Director of Water Quality
Los Angeles-City, Dept. Of Water & Power
P.O. Box 51111 Rm 1213
Los Angeles, CA 90051

Dear Albert Gastelum:

System No: 1910067 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles-City, Dept. Of Water & Power water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910067 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910067 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Los Angeles-City, Dept. Of Water & Power

Los Angeles County
System No. 1910067

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles-City, Dept. Of Water & Power
Public Water System No. *1910067*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410005
January 17, 2017

MARK FACHIN, PUBLIC WORKS DIRECTOR
CITY OF LOS BANOS
411 MADISON AVENUE
LOS BANOS, CA 93635

Dear MARK FACHIN,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LOS BANOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LOS BANOS
(Public Water System No.: *2410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

137. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

138. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

139. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

140. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

141. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

142. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

143. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

144. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

154. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

155. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

156. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

157. The water system may stop lead sampling at a school if:

qqq. All initial samples are less than or equal to 15 ppb; or

rrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttt. If requested in writing by the school's authorized school representative.

158. The water system is responsible for the following costs:

ii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

159. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

160. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

161. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiii. The date of the request;

jjjj. The date of the initial meeting;

kkkk. The date of the sampling plan along with a copy of each sampling plan; and

llll. The date of initial lead sampling and all repeat samples.

162. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

273. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
274. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
275. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
276. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
277. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
278. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
279. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

280. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
281. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
282. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
283. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
284. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
285. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
286. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
287. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
288. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

120. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
121. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
122. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

123. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
124. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
125. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
126. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

86. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
87. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
88. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
89. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
90. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
56. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
57. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

58. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

120. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
121. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
122. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
123. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
124. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
125. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
126. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Loyalton
(Public Water System No. 4610001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2010002
January 17, 2017

DAVID RANDALL, PW DIRECTOR
CITY OF MADERA
1030 SOUTH GATEWAY DRIVE
MADERA, CA 93637

Dear DAVID RANDALL,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF MADERA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MADERA
(Public Water System No.: *2010002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

17. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

18. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

19. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

20. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

21. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

22. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

23. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

24. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

19. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

20. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

21. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

22. The water system may stop lead sampling at a school if:

i. All initial samples are less than or equal to 15 ppb; or

j. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

v. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

vi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

k. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

l. If requested in writing by the school's authorized school representative.

23. The water system is responsible for the following costs:

e. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

f. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

24. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

25. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

26. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    k. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    l. The date of the request;

    m. The date of the initial meeting;

    n. The date of the sampling plan along with a copy of each sampling plan; and

    o. The date of initial lead sampling and all repeat samples.

27. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

33. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
34. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
35. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
36. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
37. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
38. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
39. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

40. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
41. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
42. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
43. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
44. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
45. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
46. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
47. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
48. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

15. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
16. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
17. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

18. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
19. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
20. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
21. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

11. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
12. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
13. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
14. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
15. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
11. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
12. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

13. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

15. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
16. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
17. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
18. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
19. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
20. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
21. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Shawn Igoe
Acting Utilities Manager
Manhattan Beach – City, Water Department
3621 Bell Avenue
Manhattan Beach, CA 90266

Dear: Shawn Igoe

System No: 1910083 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Manhattan Beach - City Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 83 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910083 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Manhattan Beach-City, Water Department
Public Water System No. *1910083*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. George Montross
Water System Superintendent
City of Manteca, System No. 3910005
1001 W Center Street
Manteca, CA 95337

Dear : Mr. Montross

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Manteca water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Manteca
(Public Water System No. 3910005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710006

Thomas Campbell
Wtp Superintendent
City of Martinez
525 Henrietta Street
Martinez, CA 94553

Dear Thomas Campbell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Martinez water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Martinez
(Public Water System No. *CA0710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mario Gonzales, Public Works Director
City of McFarland, System No. 1510013
401 West Kern Avenue
McFarland, CA 93250

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mario Gonzales:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of McFarland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of McFarland
(Public Water System No. *1510013*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MENDOTA
Public Water System No. *1010021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_094**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Pam Lowe
City of Menlo Park, System No. 4110017
701 Laurel Street
Menlo Park, CA 94025

Dear Ms. Lowe:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Menlo Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Menlo Park
(Public Water System No. *4110017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410009
January 17, 2017

KEN ELWIN, PW DIRECTOR
CITY OF MERCED
1776 Grogan Avenue
MERCED, CA 95341

Dear KEN ELWIN,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF MERCED water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MERCED
(Public Water System No.: *2410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

169. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

170. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

171. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

172. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

173. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

174. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

175. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

176. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

190. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

191. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

192. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

193. The water system may stop lead sampling at a school if:

gggg. All initial samples are less than or equal to 15 ppb; or

hhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjj. If requested in writing by the school's authorized school representative.

194. The water system is responsible for the following costs:

qq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

195. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

196. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

197. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccc. The date of the request;

ddddd. The date of the initial meeting;

eeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffff. The date of initial lead sampling and all repeat samples.

198. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

337. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
338. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
339. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
340. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
341. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
342. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
343. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

344. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
345. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
346. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
347. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
348. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
349. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
350. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
351. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
352. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

148. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
149. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
150. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

151. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
152. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
153. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
154. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
108. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
109. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
110. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
68. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
69. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

70. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

148. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
149. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
150. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
151. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
152. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
153. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
154. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Craig Centis
City of Millbrae, System No. 4110018
621 Magnolia Avenue
Millbrae, CA 94030

Dear Mr. Centis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Millbrae water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Millbrae
(Public Water System No. *4110018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Nina Hawk
City of Milpitas, System No. 4310005
1265 N. Milpitas Boulevard
Milpitas, CA 95035

Dear Ms. Hawk:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Milpitas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Milpitas
(Public Water System No. *4310005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Savidge
Water Systems Manager
City of Modesto, System No. 5010010
P.O. Box 642
Modesto, CA 95353

Dear Mr. Savidge,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Modesto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Modesto
(Public Water System No. 5010010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Savidge
Water Systems Manager
City of Modesto - Salida, System No. 5010005
P.O. Box 642
Modesto, CA 95353

Dear Mr. Savidge,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Modesto – Salida
(Public Water System No. 5010005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Heldman
Water Utility Manager
Monterey Park-City, Water Dept.
320 Newmark Avenue
Monterey Park, CA 91754

Dear Frank Heldman:

System No: 1910092 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monterey Park-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910092 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910092 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Monterey Park-City, Water Dept.

Los Angeles County
System No. 1910092

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monterey Park-City, Water Dept.
Public Water System No. *1910092*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dan Repp
City of Morgan Hill, System No. 4310006
100 Edes Court
Morgan Hill, CA 95037

Dear Mr. Repp:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Morgan Hill water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Morgan Hill
(Public Water System No. *4310006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Gregg Hosfeldt
City of Mountain View, System No. 4310007
231 North Whisman Road
Mountain View, CA 94043

Dear Mr. Hosfeldt:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Mountain View water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Mountain View
(Public Water System No. *4310007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810003

Erin Kebbas, Water Quality Manager
Napa, City Of
P.O. Box 660
Napa, CA 94559

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Erin Kebbas:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Napa, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810003

cc: Napa County Environmental Health Department (email)

2810003/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Napa, City Of
(Public Water System No. 2810003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jerry Porter, Chief Operator
City of Needles,
System No. 3610032
817 Third Street
Needles, CA 92363

Dear: Jerry P.O.rter,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Needles water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Needles
(Public Water System No. *3610032*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 2910002

Mark Prestwich
City Manager
City of Nevada City, System No. 2910002
317 Broad Street
Nevada City, CA 95959

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Nevada City public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910002

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Nevada City
Public Water System
(Public Water System No. 2910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Kim Koosun
Public Works Director
City of Newman, System No. 5010013
P.O. Box 787
Newman, CA 95360

Dear : Mr. Koosun

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Newman water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Newman
(Public Water System No. 5010013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. George Murdoch
General Manager
City of Newport Beach, System No. 3010023
P.O. Box 1768
Newport Beach, CA 92658

Dear Mr. Murdoch:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Newport Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Newport Beach
(Public Water System No. 3010023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Chad Blais
Director of Public Works
City of Norco, System No. 3310025
2870 Clark Ave.
Norco, CA 92860

Dear Chad Blais:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Norco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Norco
(Public Water System No. 3310025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gary Dicorpo
DIRECTOR OF PUBLIC S
Norwalk - City, Water Dept.
12700 Norwalk Blvd.
Norwalk, CA 90650

Dear Gary Dicorpo:

System No: 1910191 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Norwalk - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
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☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910191 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Norwalk - City, Water Dept.

Los Angeles County
System No. 1910191

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Norwalk - City, Water Dept.
Public Water System No. *1910191*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Black
Interim Public Services Manager
City of Oakdale, System No. 5010014
455 South Fifth Avenue
Oakdale, CA 95361

Dear Mr. Black,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Oakdale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Oakdale
(Public Water System No. 5010014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Lori Rigby
Compliance Officer
City of Oceanside, System No. 3710014
300 N. Coast Hwy.
Oceanside, CA 92054

Dear Ms. Rigby:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Oceanside water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Oceanside
(Public Water System No. 3710014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ORANGE COVE
Public Water System No. *1010023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_095**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Robert Baehner
Principal Engineer
City of Orange, System No. 3010027
189 S. Water Street
Orange, CA 92866

Dear Mr. Baehner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Orange water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Orange
(Public Water System No. 3010027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ed Vonasek
Pub Wrks Supervisor
CITY OF ORLAND, System No. 1110001
815 4TH STREET
ORLAND, CA 95963

Dear : Ed Vonasek

ISSUANCE OF PERMIT AMENDMENT 71-031A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF ORLAND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

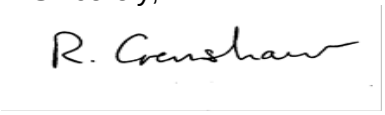

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 71-031A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ORLAND
(Public Water System No. *1110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***71-031A5***
EFFECTIVE DATE**: January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dean Batchelor
City of Palo Alto, System No. 4310009
P.O. Box 10250
Palo Alto, CA 94303

Dear Mr. Batchelor:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Palo Alto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Palo Alto
(Public Water System No. *4310009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Christopher Cash
Director Of Public Works
Paramount - City, Water Dept.
16400 Colorado Ave.
Paramount, CA 90723

Dear Christopher Cash:

System No: 1910105 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Paramount - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910105 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910105 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Paramount - City, Water Dept.

Los Angeles County
System No. 1910105

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Paramount - City, Water Dept.
Public Water System No. *1910105*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF PARLIER
Public Water System No. *1010025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_096**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Shan Kwan
Assistant General Manager
Pasadena-City, Water Dept.
150 S. Los Robles Ave, Suite 200
Pasadena, CA 91101

Dear Shan Kwan:

System No: 1910124 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pasadena-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910124 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910124 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pasadena-City, Water Dept.

Los Angeles County
System No. 1910124

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pasadena-City, Water Dept.
Public Water System No. *1910124*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Robert Andrade
Public Works Deputy Director
City of Patterson, System No. 5010017
1 Plaza
Patterson, CA 95363

Dear : Mr. Andrade

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Patterson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Patterson
(Public Water System No. 5010017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ron Carr
Assistant General Manager
City of Perris, System No. 3310029
101 North D St.
Perris, CA 92570

Dear Ron Carr:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Perris water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Perris
(Public Water System No. 3310029)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910006

Patrick Dirrane, Utility Supervisor
Petaluma, City Of
202 North McDowell Boulevard
Petaluma, CA 94953

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Patrick Dirrane:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Petaluma, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910006

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Petaluma, City Of
(Public Water System No. 4910006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Enriquez
Director/ Public Works
Pico Rivera - City, Water Dept.
6615 Passons Blvd.
Pico Rivera, CA 90660

Dear James Enriquez:

System No: 1910042 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pico Rivera - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910042 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910042 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pico Rivera - City, Water Dept.

Los Angeles County
System No. 1910042

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pico Rivera - City, Water Dept.
Public Water System No. *1910042*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710008

Fritz Mckinley
Public Works Director
City of Pittsburg
65 Civic Ave
Pittsburg, CA 94565-3814

Dear Fritz McKinley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Pittsburg water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Pittsburg
(Public Water System No. *CA0710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910003

Nathan Strong
Engineer
City of Placerville - Main, System No. 0910003
3101 Center Street
Placerville, CA 95667

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Placerville - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910003

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Placerville - Main
Public Water System
(Public Water System No. 0910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910003**
EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110008

Dan Martin
Utilities Superintendent
City of Pleasanton
PO Box 520
Pleasanton, CA 94566-0802

Dear Dan Martin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Pleasanton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Pleasanton
(Public Water System No. *CA0110008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Gardner
City Manager
City of Plymouth, System No. 0310004
P.O. Box 429
Plymouth, CA 95669

Dear : Mr. Gardner

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Plymouth water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Plymouth
(Public Water System No. 0310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Darron Poulsen
Operations Manager
Pomona - City, Water Dept.
148 N. Huntington Street
Pomona, CA 91768

Dear Darron Poulsen:

System No: 1910126 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pomona - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910126 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910126 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pomona - City, Water Dept.

Los Angeles County
System No. 1910126

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pomona - City, Water Dept.
Public Water System No. *1910126*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bryan Styles
Field Services Mgr.
Porterville, City of, System No. 5410010
291 North Main Street
Porterville, CA 93257

Dear: Bryan Styles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville, City of
(Public Water System No. 5410010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Portola
(Public Water System No. 3210003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Anita Rice
Admin
CITY OF RED BLUFF, System No. 5210004
555 Washington St.
RED BLUFF, CA 96080

Dear : Anita Rice

ISSUANCE OF PERMIT AMENDMENT 71-016E

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF RED BLUFF water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

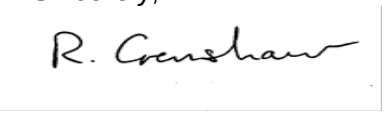

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 71-016E

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF RED BLUFF
(Public Water System No. *5210004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***71-016E***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Redding
(Public Water System No. 4510005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Terence Kyaw
City of Redwood City, System No. 4110022
1400 Broadway
Redwood City, CA 94063

Dear Mr. Kyaw:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Redwood City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Redwood City
(Public Water System No. *4110022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF REEDLEY
Public Water System No. *1010027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_097**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Clarence Mansell, General Manager
City of Rialto,
System No. 3610038
437 N. Riverside Ave.
Rialto, CA 92376

Dear: Clarence Mansell,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Rialto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Rialto
(Public Water System No. *3610038*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810004

David Melilli
Public Works Director
City of Rio Vista
1 Main Street
Rio Vista, CA 94571-1842

Dear David Melilli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Rio Vista water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Rio Vista
(Public Water System No. *CA4810004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ted Johnston
Public Works Director
City of Ripon, System No. 3910007
259 N. Wilma Avenue
Ripon, CA 95366

Dear: Mr. Johnston,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Ripon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Ripon
(Public Water System No. 3910007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Riddell
Public Works Superintendent
City of Riverbank, System No. 5010018
6707 Third Street
Riverbank, CA 95367

Dear Mr. Riddell,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Riverbank water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Riverbank
(Public Water System No. 5010018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Todd Jorgensen, P.E.
Assistant General Manager - Water
City of Riverside, System No. 3310031
3rd Floor
3750 University Ave.
Riverside, CA 92504

Dear Todd Jorgenson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Riverside water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Riverside
(Public Water System No. 3310031)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910014

John Mcarthur, Director of PW & CS
Rohnert Park, City Of
600 Enterprise Drive
Rohnert Park, CA 94928

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Mcarthur:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Rohnert Park, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910014

cc: Mark Hendersen, 600 Enterprise Drive, Rohnert Park, CA 94928
Sonoma County Environmental Health Department (email)

4910014/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rohnert Park, City Of
(Public Water System No. 4910014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910014/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Roseville
(Public Water System No. 3110008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410020

Pravani Vandeyar
Water Quality Superintendent
City of Sacramento, System No. 3410020
7501 College Town Drive
Sacramento, CA 95826

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410020

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Sacramento public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410020

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Sacramento
Public Water System
(Public Water System No. 3410020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410020**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stacey Aldstadt, General Manager
San Bernardino City
System No. 3610039
P.O. Box 710
San Bernardino, CA 92402

Dear: Stacey Aldstadt,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Bernardino City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Bernardino City
(Public Water System No. *3610039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jimmy Tan
City of San Bruno, System No. 4110023
567 El Camino Real
San Bruno, CA 94066

Dear Mr. Tan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Bruno water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Bruno
(Public Water System No. *4110023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Kevin Lussier
Utilities Operation Supervisor
City of San Clemente, System No. 3010036
380 Avenida Pico Bldg. N
San Clemente, CA 92672

Dear Mr. Lussier:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Clemente water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Clemente
(Public Water System No. 3010036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Halla Razak
Public Utilities Director
City of San Diego, System No. 3710020
9192 Topaz Way
San Diego, CA 92123

Dear Halla Razak:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Diego water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Diego
(Public Water System No. *3710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tony Salazar
Power Superintendent
San Fernando-City, Water Dept.
117 Macneil Street
San Fernando, CA 91340

Dear: Tony Salazar

System No: 1910143 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Fernando-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910143 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910143 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Fernando-City, Water Dept.
Public Water System No. *1910143*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810011

Andrew DeGraca
Water Quality Division Director
SFPUC- City Distribution Division
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC-City Distribution Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - City Distribution Division
(Public Water System No. *CA3810011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Dan Mudrovich
Water Utilities Superintendent
City of San Jacinto, System No. 3310032
270 Bissell Place
San Jacinto, CA 92583

Dear Dan Mudrovich:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Jacinto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jacinto
(Public Water System No. 3310032)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN JOAQUIN, CITY OF
Public Water System No. *1010034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_101**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Provenzano
City of San Jose - Evergreen/Edenvale/Coyote, System No. 4310020
3025 Tuers Road
San Jose, CA 95121

Dear Mr. Provenzano:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Jose - Evergreen/Edenvale/Coyote water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jose - Evergreen/Edenvale/Coyote
(Public Water System No. *4310020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Provenzano
City of San Jose - North San Jose/Alviso, System No. 4310019
3025 Tuers Road
San Jose, CA 95121

Dear Mr. Provenzano:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Jose - North San Jose/Alviso water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jose - North San Jose/Alviso
(Public Water System No. *4310019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roger Grimsley, City Manager
City of San Juan Bautista, System No. 3510002
PO Box 1420
San Juan Bautista, CA. 95045

Dear Mr. Grimsley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Juan Bautista water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SAN JUAN BAUTISTA
(Public Water System No. *3510002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Glenn R. Garrett
Chief Plant Operator
City of San Juan Capistrano, System No. 3010030
32450 Paseo Adelanto
San Juan Capistrano, CA 92675

Dear Mr. Garrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Juan Capistrano water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Juan Capistrano
(Public Water System No. 3010030)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SANGER
Public Water System No. *1010029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_099**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Nabil Saba
Water Resources Manager
City of Santa Ana, System No. 3010038
220 South Daisy Ave. Bldg A
Santa Ana, CA 92703

Dear Mr. Saba:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Santa Ana water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Santa Ana
(Public Water System No. 3010038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

REBECCA BJORK
PUBLIC WORKS DIRECTOR
CITY OF SANTA BARBARA WATER DEPARTMENT, System No. 4210010
PO BOX 1990
SANTA BARBARA, CA 93102

Dear: REBECCA BJORK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF SANTA BARBARA WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

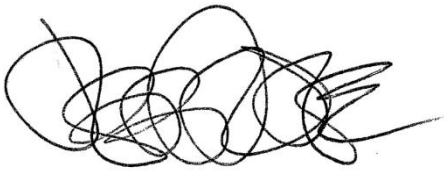

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SANTA BARBARA WATER DEPARTMENT

(Public Water System No. *4210010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

297. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

298. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

299. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

300. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

301. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

302. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

303. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

304. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

334. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

335. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

336. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

337. The water system may stop lead sampling at a school if:

ssssss. All initial samples are less than or equal to 15 ppb; or

tttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvv. If requested in writing by the school's authorized school representative.

338. The water system is responsible for the following costs:

www. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

339. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

340. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

341. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

dddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeee. The date of the request;

ffffffff. The date of the initial meeting;

gggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhh. The date of initial lead sampling and all repeat samples.

342. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Gary Welling
City of Santa Clara, System No. 4310012
1500 Warburton Avenue
Santa Clara, CA 95050

Dear Mr. Welling:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Santa Clara water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Santa Clara
(Public Water System No. *4310012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gilbert Borboa
Water Resources Manager
Santa Monica-City, Water Division
1212 5Th Street
Santa Monica, CA 90401

Dear: Gilbert Borboa

System No: 1910146 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910146 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910146 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Monica-City, Water Division
Public Water System No. *1910146*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910009

Peter Fulkerson, Water Quality Superv
Santa Rosa, City Of
35 Stony Point Road
Santa Rosa, CA 95401

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Peter Fulkerson:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Santa Rosa, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910009

cc: Sonoma County Environmental Health Department (email)

4910009/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Rosa, City Of
(Public Water System No. 4910009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910009/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Jims Basham
Interim Public Work Director
City of Seal Beach, System No. 3010041
211 8th Street
Seal Beach, CA 90740

Dear Mr. Basham:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Seal Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Seal Beach
(Public Water System No. 3010041)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910011

Richard Emig, Public Works Superintendent
Sebastopol, City Of
714 Johnson Street
Sebastopol, CA 95472

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Richard Emig:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sebastopol, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910011

cc: Henry Mikus, Engineering Manager, 714 Johnson Street, Sebastopol, CA 95472
Sonoma County Environmental Health Department (email)

4910011/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sebastopol, City Of
(Public Water System No. 4910011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910011/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael James, Public Works Director
City of Shafter, System No. 1510019
336 Pacific Avenue
Shafter, CA 93263

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Michael James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Shafter water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Shafter
(Public Water System No. *1510019*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Shasta Lake
(Public Water System No. 4510006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday and Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Bruce Inman
Director Of Public Works
Sierra Madre-City, Water Dept.
232 W. Sierra Madre Blvd.
Sierra Madre, CA 91024

Dear Bruce Inman:

System No: 1910148 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Madre-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910148 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910148 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Sierra Madre-City, Water Dept.

Los Angeles County
System No. 1910148

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Madre-City, Water Dept.
Public Water System No. *1910148*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Grissel Chavez
Public Works Deputy Director
Signal Hill - City, Water Dept.
2175 E. 28Th Street
Signal Hill, CA 90755

Dear Grissel Chavez:

System No: 1910149 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Signal Hill - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910149 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910149 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Signal Hill - City, Water Dept.

Los Angeles County
System No. 1910149

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Signal Hill - City, Water Dept.
Public Water System No. *1910149*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donald Wilcox, Public Works Director
City of Soledad, System No. 2710011
PO Box 156
Soledad, CA. 93960

Dear Mr. Wilcox:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Soledad water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SOLEDAD
(Public Water System No. *2710011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910012

Dan Takasugi, Public Works Dir
Sonoma, City Of
No. 1 The Plaza
Sonoma, CA 95476

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Dan Takasugi:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sonoma, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910012

cc: Sonoma County Environmental Health Department (email)

4910012/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sonoma, City Of
(Public Water System No. 4910012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Anteneh Tesfaye
Water Operations Manager
City Of South Pasadena
825 Mission Street
South Pasadena, CA 91030

Dear: Anteneh Tesfaye

System No: 1910154 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of South Pasadena water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910154 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910154 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of South Pasadena
Public Water System No. *1910154*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810004

Steven Palmer, Public Works Director
St. Helena, City Of
1480 Main Street
St. Helena, CA 94574

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Steven Palmer:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the St. Helena, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810004

cc: David Hassell, Chief Dist Operator, 1480 Main Street, St. Helena, CA 94574
Napa County Environmental Health Department (email)

2810004/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

St. Helena, City Of
(Public Water System No. 2810004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Houston
Chief Plant Operator
City of Stockton, System No. 3910012
11373 N. Lower Sacramento Road
Lodi, CA 95242

Dear Mr. Houston,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Stockton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Stockton
(Public Water System No. 3910012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Mansour Nasser
City of Sunnyvale, System No. 4310014
P.O. Box 3707
Sunnyvale, CA 94088

Dear Mr. Nasser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Sunnyvale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Sunnyvale
(Public Water System No. *4310014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Susanville
(Public Water System No. 1810001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Tyler Napier, Utilities Supervisor
City of Tehachapi
115 South Robinson Street
Tehachapi, CA 93561

Dear Mr. Napier:

ISSUANCE OF PERMIT AMENDMENT: 1510020-2017PA_SCHOOLS (System No. 1510020)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tehachapi water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510020-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tehachapi
(Public Water System No. 1510020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510020-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Carolyn Steffan
City Clerk/Admin
CITY OF TEHAMA, System No. 5200504
P.O. BOX 70
TEHAMA, CA 96090

Dear : Carolyn Steffan

ISSUANCE OF PERMIT AMENDMENT 010293P52024A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF TEHAMA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

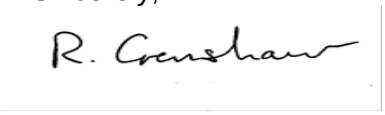

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P52024A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF TEHAMA
(Public Water System No. *5200504*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P52024A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Alan Berndt
Water Superintendent
Torrance-City, Water Dept.
20500 Madrona Avenue
Torrance, CA 90503

Dear Alan Berndt:

System No. 1910213- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Torrance-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910213 Permit File
Region 4 email

Email addresses - Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910213 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Torrance-City, Water Dept.
Public Water System No. *1910213*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kuldeep Sharma
Utilities Director
City of Tracy, System No. 3910011
520 Tracy Blvd.
Tracy, CA 95376

Dear Mr. Sharma,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tracy water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tracy
(Public Water System No. 3910011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Doyle
Utility Supervisor
Tulare, City of, System No. 5410015
3981 South K Street
Tulare, CA 93274

Dear: Tim Doyle

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tulare, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tulare, City of
(Public Water System No. 5410015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Michael Cooke
Municipal Services Director
City of Turlock, System No. 5010019
156 South Broadway, Suite 270
Turlock, CA 95380

Dear : Mr. Cooke

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Turlock water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Turlock
(Public Water System No. 5010019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Arturo Valenzuela
Water Services Manager
City of Tustin, System No. 3010046
P.O. Box 466
Tustin, CA 92781

Dear Mr. Valenzuela:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tustin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tustin
(Public Water System No. 3010046)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310003

Sean White, Director of Water & Sewer
Ukiah, City Of
300 Seminary Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sean White:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Ukiah, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310003

cc: Jarod Thiele, 300 Seminary Avenue, Ukiah, CA 95482
Lyle Valador, Designated Operator, 869 Lake Mendocino Drive, Ukiah, CA 95482
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ukiah, City Of
(Public Water System No. 2310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rosemary Hoerning, Public Works Dir
City of Upland,
System No. 3610050
1370 N. Benson Ave.
Upland, CA 92867

Dear: Rosemary Hoerning,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Upland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Upland
(Public Water System No. *3610050*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810008

Royce Cunningham
Asst. Utilities Director
City of Vacaville
Po Box 220
Elmira, CA 95625-0220

Dear Royce Cunningham:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vacaville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vacaville
(Public Water System No. *CA4810008*)

By The

State Water Resources Control Board

Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810007

Martin Querin
Asst. Public Works Director
City of Vallejo
202 Fleming Hill Road
Vallejo, CA 94589-2237

Dear Martin Querin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vallejo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vallejo
(Public Water System No. *CA4810007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810021

Martin Querin
Asst. Public Works Director
City of Vallejo-Lakes System
202 Fleming Hill Road
Vallejo, CA 94589-2237

Dear Martin Querin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vallejo-Lakes System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vallejo - Lakes System
(Public Water System No. *CA4810021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Derek Wieske
Director of Public Works
Vernon-City, Water Dept.
4305 Santa Fe Avenue
Vernon, CA 90058

Dear Derek Wieske:

System No: 1910167 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vernon-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910167 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910167 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Vernon-City, Water Dept.

Los Angeles County
System No. 1910167

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vernon-City, Water Dept.
Public Water System No. *1910167*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

J. Paul Paris, City Manager
City of Wasco, System No. 1510021
746 8th Street
Wasco, CA 93280

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear J. Paul Paris:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Wasco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Wasco
(Public Water System No. *1510021*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Morgan
Water and Wastewater Supervisor
City of Waterford, System No. 5010006
P.O. Box 199
Waterford, CA 95386

Dear Ms. Morgan,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Waterford water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Waterford
(Public Water System No. 5010006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Beau Kayser, Water Operations Sup.
City of Watsonville, System No. 4410011
500 Clearwater Lane
Watsonville, CA. 95076

Dear Mr. Kayser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Watsonville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WATSONVILLE
(Public Water System No. *4410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 5710003

Christopher Kania
Water Superintendent
City of West Sacramento, System No. 5710003
400 N. Harbor Blvd.
West Sacramento, CA 95601

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of West Sacramento public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710003

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of West Sacramento
Public Water System
(Public Water System No. 5710003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Scott Miller
Water Superintendent
City of Westminster, System No. 3010064
14381 Olive Street
Westminster, CA 92683

Dear Mr. Miller:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Westminster water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Westminster
(Public Water System No. 3010064)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Don Scott
Public Works Supervisor
CITY OF WHEATLAND, System No. 5810004
111 C STREET
WHEATLAND, CA 95692

Dear : Don Scott

ISSUANCE OF PERMIT AMENDMENT 10-18-962A6

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF WHEATLAND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

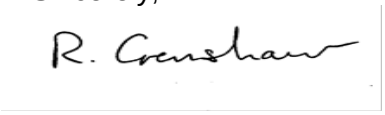

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 10-18-962A6

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WHEATLAND
(Public Water System No. *5810004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***10-18-962A6***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

David Schickling
Director Of Public Works
Whittier-City, Water Dept.
13230 Penn Street
Whittier, CA 90602

Dear David Schickling:

System No: 1910173 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Whittier-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910173 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910173 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Whittier-City, Water Dept.

Los Angeles County
System No. 1910173

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Whittier-City, Water Dept.
Public Water System No. *1910173*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Mitchell
Water Department Sup.
CITY OF WILLIAMS, System No. 610004
P.O. Box 310
WILLIAMS, CA 95987

Dear : Michael Mitchell

ISSUANCE OF PERMIT AMENDMENT 78-072A6

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF WILLIAMS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

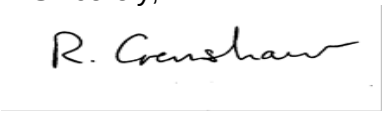

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 78-072A6

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WILLIAMS
(Public Water System No. *610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***78-072A6***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2310004

Adrienne Moore, City Manager
Willits, City Of
111 East Commercial Street
Willits, CA 95490

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Adrienne Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Willits, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310004

cc: Rod Wilburn, Public Works Director, 1111 East Commercial Street, Willits, CA 95490
Mendocino County Environmental Health Department (email)

2310004/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Willits, City Of
(Public Water System No. 2310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710005

John Donlevy
Director of Public Works
City of Winters, System No. 5710005
318 First Street
Winters, CA 95694

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Winters public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710005

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Winters
Public Water System
(Public Water System No. 5710005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710005**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ramon Lara
Woodlake, City of, System No. 5410020
350 N. Valencia
Woodlake, CA 93286

Dear: Ramon Lara

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodlake, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodlake, City of
(Public Water System No. 5410020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 5710006

Sherry Kimura
Engineering Tech. III
City of Woodland, System No. 5710006
300 First Street
Woodland, CA 95695

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Woodland public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710006

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Woodland
Public Water System
(Public Water System No. 5710006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710006**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Westhouse
WTP Supervisor
CITY OF YUBA CITY, System No. 5110002
701 Northgate Drive
YUBA CITY, CA 95991

Dear : John Westhouse

ISSUANCE OF PERMIT AMENDMENT 68-26A9

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF YUBA CITY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

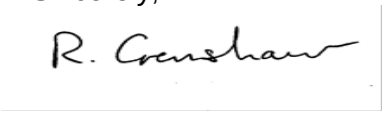

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 68-26A9

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF YUBA CITY
(Public Water System No. *5110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***68-26A9***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roxanne Holmes, General Manager
CLAWA
System No. 3610114
P. O. Box 3880
Crestline, CA 92325

Dear: Roxanne Holmes,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CLAWA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CLAWA
(Public Water System No. *3610114*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Clear Creek CSD - Anderson
(Public Water System No. 4510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710001

Alan Gardner, General Manager
Clearlake Oaks County Water District
P.O. Box 709
Clearlake Oaks, CA 95423

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Alan Gardner:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Clearlake Oaks County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Clearlake Oaks County Water District
(Public Water System No. 1710001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
CLOVERDALE MUTUAL WATER CO., System No. 5610068
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CLOVERDALE MUTUAL WATER CO. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CLOVERDALE MUTUAL WATER CO.
(Public Water System No. *5610068*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

841. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

842. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

843. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

844. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

845. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

846. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

847. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

848. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

946. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

947. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

948. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

949. The water system may stop lead sampling at a school if:

eeeeeeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

950. The water system is responsible for the following costs:

cccccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

951. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

952. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

953. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ffffffffffffffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggggggggggggggggggg. The date of the request;

hhhhhhhhhhhhhhhhhhhhh. The date of the initial meeting;

iiiiiiiiiiiiiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjjjjjjjjjjjj. The date of initial lead sampling and all repeat samples.

954. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Barrett
General Manager
Coachella Valley Water District, System No. 3310001
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – Cove Community water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley Water District – Cove Community
(Public Water System No. 3310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
Riverside District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

James Barrett
General Manager
Coachella Valley WD I.D. No. 11, System No. 1310011
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – I.D. No. 11 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley WD – I.D. No. 11
(Public Water System No. 1310011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

James Barrett
General Manager
Coachella Valley WD I.D. No. 8, System No. 3310048
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – I.D. No. 8 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley WD – I.D. No. 8
(Public Water System No. 3310048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Scott Rogers
Utilities General Manager
Coachella Water Authority, System No. 3310007
53462 Enterprise Way
Coachella, CA 92236

Dear Scott Rogers:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Water Authority
(Public Water System No. 3310007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dave Dickson
Coastside County Water District, System No. 4110011
766 Main Street
Half Moon Bay, CA 94019

Dear Mr. Dickson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coastside County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coastside County Water District
(Public Water System No. *4110011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710012

Benjamin Murphy, System Operator
Cobb Area County Water District
P.O. Box 284
Cobb, CA 95426

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Benjamin Murphy:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cobb Area County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710012

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cobb Area County Water District
(Public Water System No. 1710012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Azevedo
COLUSA CO. SERVICE AREA #2-STONYFORD, System No. 600005
1215 Market Street
COLUSA, CA 95932

Dear : Michael Azevedo

ISSUANCE OF PERMIT AMENDMENT 01-02-94P06004A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. SERVICE AREA #2-STONYFORD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

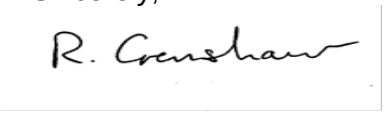

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-94P06004A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. SERVICE AREA #2-STONYFORD
(Public Water System No. *600005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-94P06004A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Stuart Angerer
Director
COLUSA CO. WWD #1 - GRIMES, System No. 600008
P. O. BOX 131
GRIMES, CA 95950

Dear : Stuart Angerer

ISSUANCE OF PERMIT AMENDMENT 010294P06007A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. WWD #1 - GRIMES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

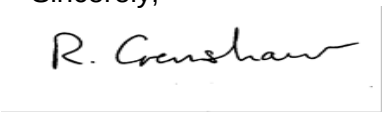

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010294P06007A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. WWD #1 - GRIMES
(Public Water System No. *600008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010294P06007A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Andy Ferendelli
President
COLUSA CO. WWD #2 - PRINCETON, System No. 600013
P.O. BOX 224
PRINCETON, CA 95970

Dear : Andy Ferendelli

ISSUANCE OF PERMIT AMENDMENT 010294P06011A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. WWD #2 - PRINCETON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

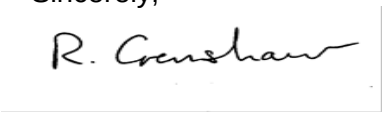

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010294P06011A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. WWD #2 - PRINCETON
(Public Water System No. *600013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010294P06011A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director Of WQ
Commerce-City, Water Dept.
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910050- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Commerce-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Commerce-City, Water Dept.
Public Water System No. *1910050*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD GALLIMORE
PRESIDENT
COMMUNITY MUTUAL WATER CO, System No. 5601125
133 North 10th Street
SANTA PAULA, CA 93060

Dear: RICHARD GALLIMORE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COMMUNITY MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

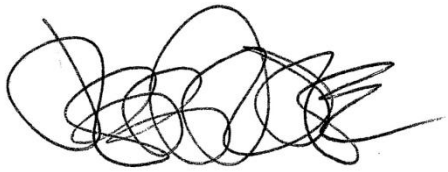

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COMMUNITY MUTUAL WATER CO
(Public Water System No. *5601125*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

457. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

458. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

459. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

460. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

461. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

462. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

463. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

464. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

514. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

515. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

516. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

517. The water system may stop lead sampling at a school if:

uuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxx. If requested in writing by the school's authorized school representative.

518. The water system is responsible for the following costs:

kkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

519. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

520. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

521. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaa. The date of the request;

bbbbbbbbbbb. The date of the initial meeting;

ccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddddddddd. The date of initial lead sampling and all repeat samples.

522. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Holcomb
Chief Operator
Compton-City, Water Dept.
205 S Willowbrook Ave.
Compton, CA 90220

Dear Kenneth Holcomb:

System No. 1910026- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Compton-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Compton-City, Water Dept.
Public Water System No. *1910026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710003

Dave Huey
Operations Manager
Contra Costa Water District
PO Box H20
Concord, CA 94524

Dear Dave Huey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Contra Costa Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Contra Costa Water District
(Public Water System No. *CA0710003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cottonwood County Water District
(Public Water System No. 4510007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COUNTRY VIEW ALZHEIMER CENTER
Public Water System No. *1000430*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_055**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Ann Stillman
County Service Area 11, System No. 4100582
555 County Center, 5th Floor
Redwood City, CA 94063

Dear Ms. Stillman:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the County Service Area 11 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

County Service Area 11
(Public Water System No. *4100582*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

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   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

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7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Gould
District Engineer
Crescenta Valley Cwd
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear David Gould:

System No: 1910028 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Crescenta Valley Cwd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910028 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910028 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Crescenta Valley Cwd

Los Angeles County
System No. 1910028

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Crescenta Valley Cwd
Public Water System No. *1910028*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karl B. Drew, General Manager
Crestline Village CWD - Division 10
System No. 3610015
P. O. Box 3347
Crestline, CA 92325

Dear: Karl B. Drew,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Crestline Village CWD - Division 10 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Crestline Village CWD - Division 10
(Public Water System No. *3610015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
CRESTVIEW MUTUAL WATER CO, System No. 5610058
328 VALLEY VISTA DRIVE
CAMARILLO, CA 93010

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CRESTVIEW MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CRESTVIEW MUTUAL WATER CO
(Public Water System No. *5610058*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

817. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

818. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

819. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

820. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

821. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

822. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

823. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

824. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

919. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

920. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

921. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

922. The water system may stop lead sampling at a school if:

ssssssssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

923. The water system is responsible for the following costs:

wwwwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

924. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

925. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

926. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqqqqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrrrrrrrrrrr. The date of the request;

ssssssssssssssssssss. The date of the initial meeting;

tttttttttttttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuuuuuuuuuuuu. The date of initial lead sampling and all repeat samples.

927. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arman Nazemi, Asst. Public Works Director
CSA No. 31 Stonegate WS, System No. 3500006
2301 Technology Parkway
Hollister, CA. 95023

Dear Mr. Nazemi:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CSA No. 31 Stonegate WS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CSA NO. 31 STONEGATE WS
(Public Water System No. *3500006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Steve Samaras
CSA 42 Oro Grande
LPA ID: 3600220
County of San Bernardino
P O Box 5004
Victorville, CA 92393

Dear Mr. Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the CSA 42 Oro Grande water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

CSA 42 Oro Grande

System No. 3600220

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arman Nazemi, Asst. Public Works Director
Dunneville Estates CSA #50, System No. 3500910
2301 Technology Parkway
Hollister, CA. 95023

Dear Mr. Nazemi:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dunneville Estates CSA #50 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DUNNEVILLE ESTATES CSA #50
(Public Water System No. *3500910*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rachel Arias, MS Maint. Chief II
CSP - Big Basin State Park, System No. 4410301
303 Big Trees Park Rd.
Felton, CA. 95018

Dear Ms. Arias:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CSP - Big Basin State Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CSP - BIG BASIN STATE PARK
(Public Water System No. *4410301*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bill Homsany, Plant Manager II
Correctional Training Facility - Soledad, System No. 2710850
PO Box 686
Soledad, CA. 93960

Dear Mr. Homsany:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Correctional Training Facility - Soledad water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CORRECTIONAL TRAINING FACILITY
SOLEDAD
(Public Water System No. *2710850*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

John Bosler, Director
Cucamonga Valley Water District
System No. 3610018
P. O. Box 638
Rancho Cucamonga, CA 91730

Dear: John Bosler,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cucamonga Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cucamonga Valley Water District
(Public Water System No. *3610018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. David Ehrhardt
Cuesta La Honda Guild, Inc., System No. 4110012
P.O. Box 21
La Honda, CA 94020

Dear Mr. Ehrhardt:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cuesta La Honda Guild, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cuesta La Honda Guild, Inc.
(Public Water System No. *4110012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dionicio Rodriguez
Superintendent
Cutler PUD, System No. 5410001
40526 Orosi Drive
Cutler, CA 93615

Dear: Dionicio Rodriguez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cutler PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cutler PUD
(Public Water System No. 5410001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SANDRA BARNSTEAD
CHIEF OPERATOR
CUYAMA COMMUNITY SERVICES DISTRICT, System No. 4210009
P.O. Box 368
NEW CUYAMA, CA 93254

Dear: SANDRA BARNSTEAD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CUYAMA COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

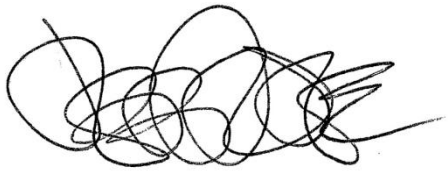

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CUYAMA COMMUNITY SERVICES DISTRICT
(Public Water System No. *4210009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

289. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

290. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

291. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

292. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

293. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

294. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

295. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

296. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

325. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

326. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

327. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

328. The water system may stop lead sampling at a school if:

oooooo. All initial samples are less than or equal to 15 ppb; or

pppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrr. If requested in writing by the school's authorized school representative.

329. The water system is responsible for the following costs:

uuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

330. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

331. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

332. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzz. The date of the request;

aaaaaaaa. The date of the initial meeting;

bbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

ccccccc. The date of initial lead sampling and all repeat samples.

333. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Bakersfield, System No. 1510003
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Bakersfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Bakersfield
(Public Water System No. *1510003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Kernville System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510033-2017PA_SCHOOLS (System No. 1510033)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Kernville System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510033-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Kernville System
(Public Water System No. 1510033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510033-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Lakeland System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510049-2017PA_SCHOOLS (System No. 1510049)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Lakeland System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510049-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Lakeland System
(Public Water System No. 1510049)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510049-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Lower Bodfish System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510056-2017PA_SCHOOLS (System No. 1510056)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Lower Bodfish System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510056-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Lower Bodfish System
(Public Water System No. 1510056)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510056-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS- North Garden, System No. 1510055
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS- North Garden
(Public Water System No. *1510055*

By The

State Water Resources Control Board

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Onyx System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510043-2017PA_SCHOOLS (System No. 1510043)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Onyx System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510043-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Onyx System
(Public Water System No. 1510043)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510043-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Selma, System No. 1010024
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Selma water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Selma
(Public Water System No. *1010024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Southlake Squirrel Valley System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510039-2017PA_SCHOOLS (System No. 1510039)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Southlake Squirrel Valley System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510039-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Southlake Squirrel Valley System
(Public Water System No. 1510039)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510039-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

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SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Visalia, System No. 5410016
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Visalia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Visalia
(Public Water System No. *5410016*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810002

Sophie James
Director of Water Quality
California Water Service Co. - Dixon
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Dixon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Dixon
(Public Water System No. *CA4810002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110003

Phillip Sipat
Superintendent
California Water Service - Livermore
195 S N St
Livermore, CA 94550-4350

Dear Phillip Sipat:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - Livermore water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Livermore
(Public Water System No. *CA0110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

PAMELA ROMICH
BOOKKEEPER
CYPRESS MUTUAL WATER CO INC, System No. 5602103
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: PAMELA ROMICH

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CYPRESS MUTUAL WATER CO INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

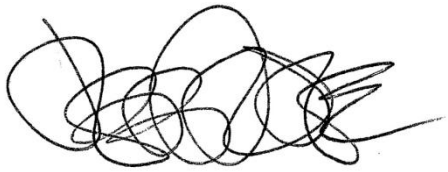

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CYPRESS MUTUAL WATER CO INC
(Public Water System No. *5602103*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

513. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

514. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

515. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

516. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

517. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

518. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

519. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

520. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

577. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

578. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

579. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

580. The water system may stop lead sampling at a school if:

wwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzz. If requested in writing by the school's authorized school representative.

581. The water system is responsible for the following costs:

yyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

582. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

583. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

584. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjjjjjj. The date of the request;

kkkkkkkkkkkkk. The date of the initial meeting;

lllllllllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmmmmmmm. The date of initial lead sampling and all repeat samples.

585. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Dave Newman
Daggett Community Services District
LPA ID: 3600086
P O Box 308
Daggett, CA 92327

Dear Mr. Newman,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Daggett Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to [joy.chakma@dph.sbcounty.gov].

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Daggett Community Services District

System No. 3600086

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Beatrice Barranco
Davenport County Sanitation District, System No. 4400571
2750 Lode St.
Santa Cruz, CA. 95062

Dear Ms. Barranco:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Davenport County Sanitation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DAVENPORT COUNTY SANITATION DISTRICT
(Public Water System No. 4400571)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Elias
President
Deer Meadow Mutual, System No. 5401026
P.O. Box 804
Three Rivers, CA 93271

Dear: Ken Elias

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Deer Meadow Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Deer Meadow Mutual
(Public Water System No. 5401026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Eric Minicilli
Public Works Director
City of Del Mar, System No. 3710004
1050 Camino Del Mar
Del Mar, CA 92014

Dear Eric Minicilli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Del Mar water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

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(Public Water System No. *3710004*)

By The

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID VANONI
MANAGER
DEL NORTE MUTUAL WATER CO., System No. 5602104
10814 TELEPHONE ROAD
VENTURA, CA 93004

Dear: DAVID VANONI

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL NORTE MUTUAL WATER CO. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

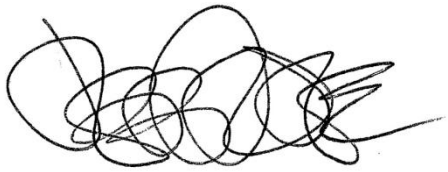

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL NORTE MUTUAL WATER CO.
(Public Water System No. *5602104*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

521. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

522. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

523. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

524. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

525. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

526. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

527. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

528. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

586. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

587. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

588. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

589. The water system may stop lead sampling at a school if:

aaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

cccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddddddd. If requested in writing by the school's authorized school representative.

590. The water system is responsible for the following costs:

aaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

591. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

592. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

593. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooooooooo. The date of the request;

pppppppppppppp. The date of the initial meeting;

qqqqqqqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrrrrrrr. The date of initial lead sampling and all repeat samples.

594. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino, CEO
Del Oro Traver District, System No. 5400553
Drawer 5172
Chico, CA 95927

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Robert Fortino:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Del Oro Traver District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Del Oro Traver District
(Public Water System No. *5400553*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-MAGALIA, System No. 410009
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 012103P04001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-MAGALIA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

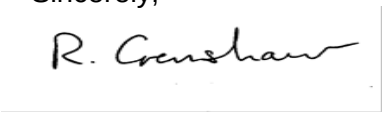

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012103P04001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-MAGALIA
(Public Water System No. *410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012103P04001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-PARADISE PINES, System No. 410011
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 77-032A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-PARADISE PINES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

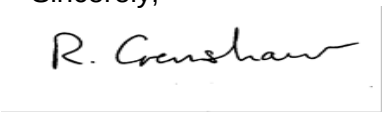

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-032A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-PARADISE PINES
(Public Water System No. *410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-032A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-STIRLING BLUFFS, System No. 410018
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 01-02-97P04002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-STIRLING BLUFFS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

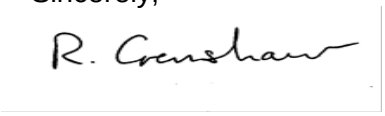

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-97P04002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-STIRLING BLUFFS
(Public Water System No. *410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-97P04002***
EFFECTIVE DATE**: January 17, 2017**

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

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R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO - METROPOLITAN DIST
Public Water System No. *1000057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_016**
EFFECTIVE DATE: **January 17, 2017**

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6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410007

Debra Sedwick
General Manager
Del Paso Manor Water District, System No. 3410007
4268 Lusk Drive
Sacramento, CA 95864

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Del Paso Manor Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410007

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Del Paso Manor Water District
Public Water System
(Public Water System No. 3410007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410007**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL REY COMMUNITY SERV DIST
Public Water System No. *1010035*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_102**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Benjamin Ruiz
Interim Director
Delft Colony Water, System No. 5403023
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Delft Colony Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Delft Colony Water
(Public Water System No. 5403023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410006
January 17, 2017

STAN FEATHERS, GENERAL MANAGER
DELHI CWD
P.O. Box 639
DELHI, CA 95315

Dear STAN FEATHERS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DELHI CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DELHI CWD
(Public Water System No.: *2410006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

145. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

146. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

147. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

148. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

149. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

150. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

151. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

152. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

163. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

164. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

165. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

166. The water system may stop lead sampling at a school if:

uuu. All initial samples are less than or equal to 15 ppb; or

vvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

www. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxx. If requested in writing by the school's authorized school representative.

167. The water system is responsible for the following costs:

kk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

168. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

169. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

170. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnn. The date of the request;

oooo. The date of the initial meeting;

pppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqq. The date of initial lead sampling and all repeat samples.

171. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

289. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
290. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
291. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
292. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
293. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
294. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
295. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

296. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
297. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
298. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
299. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
300. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
301. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
302. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
303. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
304. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

127. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
128. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
129. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

130. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
131. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
132. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
133. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

91. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
92. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
93. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
94. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
95. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
59. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
60. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

61. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

127. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
128. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
129. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
130. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
131. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
132. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
133. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSA TELLEZ
PRESIDENT
DEMPSEY ROAD MUTUAL WATER CO, System No. 5610001
2265 Samuel Avenue
OXNARD, CA 93033

Dear: ROSA TELLEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEMPSEY ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

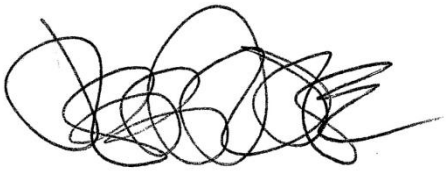

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEMPSEY ROAD MUTUAL WATER CO
(Public Water System No. *5610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

585. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

586. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

587. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

588. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

589. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

590. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

591. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

592. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

658. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

659. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

660. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

661. The water system may stop lead sampling at a school if:

ggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjj. If requested in writing by the school's authorized school representative.

662. The water system is responsible for the following costs:

qqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

663. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

664. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

665. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccccccccccccc. The date of the request;

dddddddddddddd. The date of the initial meeting;

eeeeeeeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffffffffffffff. The date of initial lead sampling and all repeat samples.

666. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Odom
General Manager
Denair Community Services District, System No. 5010021
P.O. Box 217
Denair, CA 95316

Dear: Mr. Odom,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Denair Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Denair Community Services District
(Public Water System No. 5010021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Dan Demoss
General Manager
Descanso Community Services District, System No. 3710009
4131 Northgate Blvd
Sacramento, CA 95834

Dear Dan Demoss:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Descanso Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Descanso Community Services District
(Public Water System No. *3710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Natalie Dadey, General Manager
Desert Lake Community Services District
12200 Del Oro Street
Boron, CA 93516

Dear Ms. Dadey:

ISSUANCE OF PERMIT AMENDMENT: 1510027-2017PA_SCHOOLS (System No. 1510027)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Desert Lake Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510027-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Desert Lake Community Services District
(Public Water System No. 1510027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510027-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mark Krause, P.E.
General Manager
Desert Water Agency, System No. 3310005
P.O. Box 1710
Palm Springs, CA 92263

Dear Mark Krause:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Desert Water Agency water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Desert Water Agency
(Public Water System No. 3310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Slobom, President
Devore WC
System No. 3610117
18185 Kenwood Ave,
San Bernardino, CA 92407

Dear: Mark Slobom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Devore WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Devore WC
(Public Water System No. *3610117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710007

Mike Yeraka
General Manager
Diablo Water District
Po Box 127
Oakley, CA 94561-0127

Dear Mike Yeraka:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Diablo Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Diablo Water District
(Public Water System No. *CA0710007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DORABELLE MUTUAL WATER COMPANY
Public Water System No. *1000016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_004**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DOUBLE L MOBILE RANCH PARK
Public Water System No. *1000248*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_035**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Downieville Public U.D.
(Public Water System No. 4610002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017 PWS No. CA0110009

Clint Byrum
Field Operations Supervisor
Dublin San Ramon Services District
7051 Dublin Blvd
Dublin, CA 94568-3018

Dear Clint Byrum:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dublin San Ramon Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dublin San Ramon Services District
(Public Water System No. *CA0110009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino
CEO
Ducor CSD, System No. 5400542
Drawer 5172
Chico, CA 95927

Dear: Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ducor CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ducor CSD
(Public Water System No. 5400542)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Raymond Cooper
Board President
DURHAM IRRIGATION DISTRICT, System No. 410003
9418 MIDWAY UNIT #C
DURHAM, CA 95938

Dear : Raymond Cooper

ISSUANCE OF PERMIT AMENDMENT 77-046A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DURHAM IRRIGATION DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

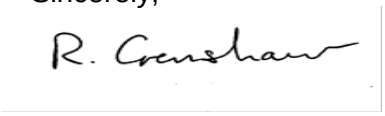

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-046A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DURHAM IRRIGATION DISTRICT
(Public Water System No. *410003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-046A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Valarie Bowker
Eagle's Nest Resort, System No. 5400602
27798 Highway 190
Porterville, CA 93257

Dear: Valarie Bowker

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eagle's Nest Resort water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eagle's Nest Resort
(Public Water System No. 5400602)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Rachel Garcia
General Manager
Earlimart PUD, System No. 5410021
P.O. Box 10148
Earlimart, CA 93219

Dear: Rachel Garcia

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Earlimart PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Earlimart PUD
(Public Water System No. 5410021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

9. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
10. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
11. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Ruiz, General Manager
East Niles Community Services District, System No. 1510006
P.O. Box 6038
Bakersfield, CA 93386

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tim Ruiz:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Niles Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Niles Community Services District
(Public Water System No. *1510006*

By The

State Water Resources Control Board

Division of Drinking Water

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7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Lisa Ohlund
General Manager
East Orange County Water District - RZ, System No. 3010068
185 North Mcpherson Road
Orange, CA 92869

Dear Ms. Ohlund:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orange County Water District - RZ water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orange County Water District - RZ
(Public Water System No. 3010068)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Lisa Ohlund
General Manager
East Orange County Water District - WZ, System No. 3010093
185 North Mcpherson Road
Orange, CA 92869

Dear Ms. Ohlund:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orange County Water District - WZ water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orange County Water District - WZ
(Public Water System No. 3010093)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lucy Rodriguez
East Orosi CSD, System No. 5401003
P.O. Box 213
Orosi, CA 93647

Dear: Lucy Rodriguez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orosi CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orosi CSD
(Public Water System No. 5401003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lawrence Morales
VP & General Manager
East Pasadena Water Co.
3725 Mountain View Avenue
Pasadena, CA 91107

Dear Lawrence Morales:

System No. 1910020- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Pasadena Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Pasadena Water Co.
Public Water System No. *1910020*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Quincy Services District
(Public Water System No. 3210008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Melanie Clark
President
East Three Rivers Mutual, System No. 5400744
P.O. Box 161
Three Rivers, CA 93271

Dear: Melanie Clark

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Three Rivers Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Three Rivers Mutual
(Public Water System No. 5400744)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Mura, General Manager
East Valley Water District
System No. 3610064
31111 GreensP.O.t Road
Highland, CA 92346

Dear: John Mura,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Valley Water District
(Public Water System No. *3610064*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paul Jones
General Manager
Eastern Municipal Water District, System No. 3310009
P.O. Box 8300
2270 Trumble Rd.
Perris, CA 92572

Dear Paul Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eastern Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eastern Municipal Water District
(Public Water System No. 3310009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

EASTON ESTATES WATER COMPANY
Public Water System No. *1000018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_005**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Tom Post
Board Member
Eastside Water Association, System No. 3010008
P.O. Box 81
Midway City, CA 92655

Dear Mr. Post:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eastside Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eastside Water Association
(Public Water System No. 3010008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110005

Eileen White
Manager of Operations
East Bay MUD
375 Eleventh Street
Oakland, CA 94607-4246

Dear Eileen White:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the EBMUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Bay Municipal Utilities District
(Public Water System No. *CA0110005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark R. Edwards, 412 CES/CEOIU Civil Engineering
Edwards AFB - Main Base
225 N. Rosamond Blvd
Edwards AFB, CA 93524

Dear Mr. Edwards:

ISSUANCE OF PERMIT AMENDMENT: 1510701-2017PA_SCHOOLS (System No. 1510701)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Edwards AFB - Main Base water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510701-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Philicia Geiser, Edwards AFB (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Edwards AFB - Main Base
(Public Water System No. 1510701)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510701-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Terry Hagen
Director of Public Works
City of El Centro, System No. 1310004
307 West Brighton Avenue
El Centro, CA 92243

Dear Terry Hagen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of El Centro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of El Centro
(Public Water System No. *1310004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910001

Jim Abercrombie
Manager
El Dorado Irrigation District – Mane, Public Water System No. 0910001
2890 Mosquito Road
Placerville, CA 95667

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Dorado Irrigation District – Mane public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910001

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Dorado Irrigation District - Main
Public Water System
(Public Water System No. 0910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Murry Sprunger
President, Board of Directors
El Dorado Mutual Water Co.
P.O. Box 900519
Palmdale, CA 93590

Dear Murry Sprunger:

System No: 1900803 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Dorado Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910801 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910801 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

El Dorado Mutual Water Co.

Los Angeles County
System No. 1900803

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Dorado Mutual Water Co.
Public Water System No. *1900803*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason McDougall
El Monte Village MHP, System No. 5400523
3511 Del Paso Road, Suite 160-240
Sacramento, CA 95835

Dear: Jason McDougall

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Monte Village MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Monte Village MHP
(Public Water System No. 5400523)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Robert Hill
General Manager
El Toro Water District, System No. 3010079
24251 Los Alisos Blvd.
Lake Forest, CA 92630

Dear Mr. Hill:

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Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

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El Toro Water District
(Public Water System No. 3010079)

By The

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1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300514

Norman De Vall, Board Member
Elk County Water District
P.O. Box 3
Elk, CA 95432

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300514

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Norman De Vall:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Elk County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300514

cc: Charles Acker (ECWD), Manager, P.O. Box 54, Elk, CA 95432
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elk County Water District
(Public Water System No. 2300514)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300514/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stan Drummond
President
ELK CREEK COMMUNITY S.D., System No. 1100616
P.O. Box 189
ELK CREEK, CA 95939

Dear : Stan Drummond

ISSUANCE OF PERMIT AMENDMENT 010299P11001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ELK CREEK COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

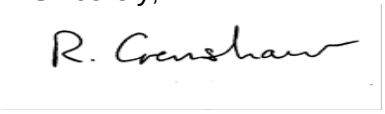

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010299P11001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELK CREEK COMMUNITY S.D.
(Public Water System No. *1100616*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010299P11001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410008

Mark Madison
General Manager
Elk Grove Water Service, System No. 3410008
9257 Elk Grove Blvd.
Elk Grove, CA 95624

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410008

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Elk Grove Water Service public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410008

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elk Grove Water Service
Public Water System
(Public Water System No. 3410008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410008**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEFF NAAS
GOLF COURSE SUPT
ELKINS RANCH, System No. 5601134
PO Box 695
FILLMORE, CA 93015

Dear: JEFF NAAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ELKINS RANCH water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELKINS RANCH
(Public Water System No. *5601134*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

465. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

466. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

467. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

468. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

469. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

470. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

471. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

472. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

523. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

524. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

525. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

526. The water system may stop lead sampling at a school if:

yyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbb. If requested in writing by the school's authorized school representative.

527. The water system is responsible for the following costs:

mmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

528. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

529. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

530. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffff. The date of the request;

gggggggggggg. The date of the initial meeting;

hhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiii. The date of initial lead sampling and all repeat samples.

531. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELM COURT
Public Water System No. *1000277*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_041**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

John Vega
General Manager
Elsinore Valley Municipal Water District, System No. 3310012
P.O. Box 3000
31315 Chaney St.
Lake Elsinore, CA 92530

Dear John Vega:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Elsinore Valley Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elsinore Valley Municipal Water District
(Public Water System No. 3310012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Debbie Loseth, Office Manager
Erskine Creek Water Company
P.O. Box 647
Lake Isabella, CA 93240

Dear Ms. Loseth:

ISSUANCE OF PERMIT AMENDMENT: 1510009-2017PA_SCHOOLS (System No. 1510009)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Erskine Creek Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510009-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
McMor Chlorination, Inc. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Erskine Creek Water Company
(Public Water System No. 1510009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510009-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Christopher Mckinney
Director of Utilities
City of Escondido, System No. 3710006
201 North Broadway
Escondido, CA 92025

Dear Christopher Mckinney:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Escondido water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Escondido
(Public Water System No. *3710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710007

Jason Findley
Utility Systems Operator
Esparto Community Services District, System No. 5710007
P.O. Box 349
Esparto, CA 95627

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Esparto Community Services District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
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Please visit the Division's school lead sampling webpage at:
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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710007

Cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Esparto Community Services District
Public Water System
(Public Water System No. 5710007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710007**
EFFECTIVE DATE**: January 19, 2017**

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Moneda
Estero Municipal Improvement District, System No. 4110021
610 Foster City Boulevard
Foster City, CA 94404

Dear Mr. Moneda:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Estero Municipal Improvement District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Estero Municipal Improvement District
(Public Water System No. *4110021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410009

Tom Gray
General Manager
Fair Oaks Water District, System No. 3410009
10326 Fair Oaks Blvd.
Sacramento, CA 95628

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fair Oaks Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410009

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fair Oaks Water District
Public Water System
(Public Water System No. 3410009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410009**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daniel Cowherd
President
Fairway Mutual Water Co., System No. 5403084
3152 Fairway
Kingsburg, CA 93631

Dear: Daniel Cowherd

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fairway Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fairway Mutual Water Co.
(Public Water System No. 5403084)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fall River Valley CSD
(Public Water System No. 4510008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brian Brady
General Manager
Fallbrook Public Utilities District, System No. 3710008
P.O. Box 2290
Fallbrook, CA 92088

Dear Brian Brady:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fallbrook Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fallbrook Public Utilities District
(Public Water System No. *3710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joaquin Baeza, Superintendent
Fallsvale Service Company
System No. 3610021
P.O. Box 23
Forest Falls, CA 92339

Dear: Joaquin Baeza,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fallsvale Service Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fallsvale Service Company
(Public Water System No. *3610021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FARMING D
Public Water System No. *1009147*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_078**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #05/WILDWOOD ISLAND
Public Water System No. *1000021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_007**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #10A/MANSIONETTE ESTATES
Public Water System No. *1000554*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_063**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #10/CUMORAH KNOLLS
Public Water System No. *1000039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_009**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #14/BELMONT MANOR
Public Water System No. *1000023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_008**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #30/EL PORVENIR
Public Water System No. *1000019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_006**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #32/CANTUA CREEK
Public Water System No. *1000359*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_047**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #34/ MILLERTON NEW TOWN
Public Water System No. *1000484*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_059**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #39 A&B
Public Water System No. *1000471*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_057**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #43/RAISIN CITY
Public Water System No. *1000551*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_062**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #44D/MONTE VERDI
Public Water System No. *1000550*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_061**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #47/QUAIL LAKE ESTATES
Public Water System No. *1010055*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_109**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #49/ FIVE POINTS
Public Water System No. *1000546*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_060**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #44C/RIVERVIEW ESTATES
Public Water System No. *1000555*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_064**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #18/FRIANT
Public Water System No. *1010051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_106**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #18/MIRA BELLA
Public Water System No. *1010062*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_110**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #37/MILE HIGH
Public Water System No. *1000040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_010**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #38/SKY HARBOUR
Public Water System No. *1000041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_011**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #40/SHAVER SPRINGS
Public Water System No. *1000042*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_012**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #41/SHAVER LAKE
Public Water System No. *1010017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_090**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

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   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

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iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

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a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #42/ALLUVIAL & FANCHER
Public Water System No. *1000078*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_026**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Matt Edmiston
Captain
Fenner Canyon Youth Conservation Camp
P.O. Box 7
Valyermo, CA 93563

Dear Matt Edmiston:

System No: 1910801 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fenner Canyon Youth Conservation Camp water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910801 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910801 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Fenner Canyon Youth Conservation Camp

Los Angeles County
System No. 1910801

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fenner Canyon Youth Conservation Camp
Public Water System No. *1910801*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHRIS WOODARD
WATER SUPERINTENDENT
FILLMORE IRRIGATION CO, System No. 5601105
540 Sespe Avenue #4
FILLMORE, CA 93015

Dear: CHRIS WOODARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the FILLMORE IRRIGATION CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

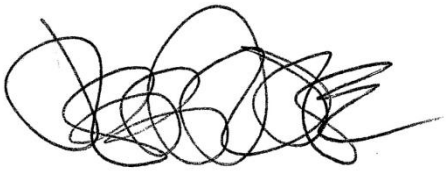

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FILLMORE IRRIGATION CO
(Public Water System No. *5601105*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

401. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

402. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

403. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

404. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

405. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

406. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

407. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

408. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

451. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

452. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

453. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

454. The water system may stop lead sampling at a school if:

ssssssss. All initial samples are less than or equal to 15 ppb; or

tttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvv. If requested in writing by the school's authorized school representative.

455. The water system is responsible for the following costs:

wwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

456. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

457. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

458. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrr. The date of the request;

sssssssss. The date of the initial meeting;

tttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuu. The date of initial lead sampling and all repeat samples.

459. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SMALLWOOD
PUBLIC WORKS SUPV
FILLMORE WATER DEPT, System No. 5610002
250 Central Avenue Central Park Plaza
FILLMORE, CA 93015

Dear: DAVID SMALLWOOD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the FILLMORE WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FILLMORE WATER DEPT
(Public Water System No. *5610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

593. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

594. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

595. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

596. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

597. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

598. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

599. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

600. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

667. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

668. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

669. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

670. The water system may stop lead sampling at a school if:

kkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

lllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

671. The water system is responsible for the following costs:

ssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

672. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

673. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

674. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhhhhhh. The date of the request;

iiiiiiiiiiiiii. The date of the initial meeting;

jjjjjjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkkkkkkk. The date of initial lead sampling and all repeat samples.

675. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FIVE POINTS RANCH
Public Water System No. *1009020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_069**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410033

Rick Bedal
General Manager
Florin County Water District, System No. 3410033
P.O. Box 292055
Sacramento, CA 95829

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410033

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Florin County Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410033

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Florin County Water District
Public Water System
(Public Water System No. 3410033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410033**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tony Gonzalez
Foothill Apartments, System No. 5400769
507 E. Scranton Avenue
Porterville, CA 93257

Dear: Tony Gonzalez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Foothill Apartments water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Foothill Apartments
(Public Water System No. 5400769)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dawana Cortez, Office Manager
Forest Lakes Mutual Water Company, System No. 4410016
910 Fern Avenue
Felton, CA. 95018

Dear Ms. Cortez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Forest Lakes Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FOREST LAKES MUTUAL WATER COMPANY

(Public Water System No. *4410016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Foresthill Public Utility District
(Public Water System No. 3110003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910019

Matthew Froneberger, General Manager
Forestville County Water District
P.O. Box 261
Forestville, CA 95436

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910019

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Matthew Froneberger:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Forestville County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910019

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Forestville County Water District
(Public Water System No. 4910019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910019/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Moeller, Comp. & IRP Manager
Fort Hunter Liggett, System No. 2710702
P.O. Box 7090
USAG Fort Hunter Liggett, CA. 93928-7090

Dear Mr. Moeller:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fort Hunter Liggett water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FORT HUNTER LIGGETT
(Public Water System No. *2710702*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jonnie E. Allison, General Manager
Frazier Park Public Utilities District
P.O. Box 1525
Frazier Park, CA 93225

Dear Mr. Allison:

ISSUANCE OF PERMIT AMENDMENT: 1510007-2017PA_SCHOOLS (System No. 1510007)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Frazier Park Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510007-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Frazier Park Public Utilities District
(Public Water System No. 1510007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510007-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410023

Robert Cook
General Manager
Fruitridge Vista Water Company, System No. 3410023
1108 2nd Street
Sacramento, CA 95814

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fruitridge Vista Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410023

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fruitridge Vista Water Company
Public Water System
(Public Water System No. 3410023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410023**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEANNIE GARCIA
SECRETARY
GARDEN ACRES MUTUAL WATER CO, System No. 5602108
2838 Fredrich Road
OXNARD, CA 93036

Dear: JEANNIE GARCIA

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GARDEN ACRES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GARDEN ACRES MUTUAL WATER CO
(Public Water System No. *5602108*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

529. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

530. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

531. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

532. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

533. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

534. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

535. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

536. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

595. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

596. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

597. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

598. The water system may stop lead sampling at a school if:

eeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhh. If requested in writing by the school's authorized school representative.

599. The water system is responsible for the following costs:

cccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

600. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

601. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

602. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sssssssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttttttt. The date of the request;

uuuuuuuuuuuu. The date of the initial meeting;

vvvvvvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwwwwwwww. The date of initial lead sampling and all repeat samples.

603. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GEORGE COX WATER SYSTEM
Public Water System No. *1000407*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_053**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910013

Henry White
General Manager
Georgetown Divide Public Utility District, System No. 0910013
6425 Main Street
Georgetown, CA 95634

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Georgetown Divide Public Utility District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910013

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Georgetown Divide Public Utility District
Public Water System
(Public Water System No. 0910013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910013**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Murphy
Business Manager
GERBER LAS FLORES CSD, System No. 5210002
331 San Benito Avenue
GERBER, CA 96035

Dear : Mike Murphy

ISSUANCE OF PERMIT AMENDMENT 012102P52002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GERBER LAS FLORES CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

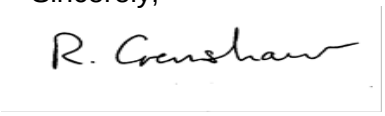

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012102P52002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GERBER LAS FLORES CSD
(Public Water System No. *5210002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012102P52002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910024

Margaret Digenova, Oper Superintendent
Geyserville Water Works (PUC)
4787 Old Redwood Highway
Santa Rosa, CA 95403

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910024

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Margaret Digenova:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Geyserville Water Works (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910024

cc: Sonoma County Environmental Health Department (email)

4910024/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Geyserville Water Works (PUC)
(Public Water System No. 4910024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910024/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Fritz Meier
Gleanings for the Hungry, System No. 5402047
P.O. Box 309
Sultana, CA 93666

Dear: Fritz Meier

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gleanings for the Hungry water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gleanings for the Hungry
(Public Water System No. 5402047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Frank Haahr, General Manager
Glen Martin MWC
System No. 3610016
P.O. Box 2
Angelus Oaks, CA 92305

Dear: Frank Haahr,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glen Martin MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glen Martin MWC
(Public Water System No. *3610016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

May 15, 2017

Brett Rogers, President
Glennville Mutual Water Company
P.O. Box 931
Glennville, CA 93226

Dear Mr. Rogers:

ISSUANCE OF PERMIT AMENDMENT: 1503536-2017PA_SCHOOLS (System No. 1503536)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glennville Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

Glennville Mutual Water Company is receiving this permit amendment since it recently started serving Linns Valley School. If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5646 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1503536-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
McMor Chlorination Inc. (Email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glennville Mutual Water Company
(Public Water System No.1503536)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1503536-2017PA-SCHOOLS**

EFFECTIVE DATE: **May 15, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: May 15, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
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GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Fisher, General Manager
Golden Hills Community Services District
P.O. Box 637
Tehachapi, CA 93581

Dear Mr. Fisher:

ISSUANCE OF PERMIT AMENDMENT: 1510045-2017PA_SCHOOLS (System No. 1510045)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden Hills Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510045-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Mike Sides, Golden Hills CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden Hills Community Services District
(Public Water System No. 1510045)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510045-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710002

Paul Schubert, District Manager
Golden State Water Co.-Clearlake System
3005 Gold Canal Drive
Rancho Cordova, CA 95670-6129

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Schubert:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Golden State Water Co.-Clearlake System (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710002

cc:

Lake County Environmental Health Department (email)

1710002/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co.-Clearlake System
(Public Water System No. 1710002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dave Schultise
Water Quality Engineer
GSWC - Southwest
14401 South Chadron Avenue
Hawthorne, CA 90250

Dear: Dave Schultise

System No: 1910155 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC - Southwest water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910155 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910155 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC - Southwest
Public Water System No. *1910155*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410003

Paul Schubert
District Manager
Golden State Water Company – Arden Water Service, System No. 3410003
3005 Gold Canal Drive
Sacramento, CA 95670

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company – Arden Water Service public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410003

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company – Arden Water Service
Public Water System
(Public Water System No. 3410003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410003**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410015

Paul Schubert
District Manager
Golden State Water Company - Cordova, System No. 3410015
3005 Gold Canal Drive
Rancho Cordova, CA 95670

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410015

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Cordova public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410015

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Cordova
Public Water System
(Public Water System No. 3410015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410015**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Apple Valley North
System No. 3610105
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Apple Valley North water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Apple Valley North
(Public Water System No. *3610105*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Apple Valley South
System No. 3610107
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Apple Valley South water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Apple Valley South
(Public Water System No. *3610107*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Barstow
System No. 3610043
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Barstow water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Barstow
(Public Water System No. *3610043*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Lucerne
System No. 3610108
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Lucerne water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Lucerne
(Public Water System No. *3610108*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Morongo Del Sur
System No. 3610063
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Morongo Del Sur water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Morongo Del Sur
(Public Water System No. *3610063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Wrightwood
System No. 3610047
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Wrightwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Wrightwood
(Public Water System No. *3610047*)

By The

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Cowan Heights, System No. 3010047
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Cowan Heights water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Cowan Heights
(Public Water System No. 3010047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Placentia, System No. 3010035
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Placentia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Placentia
(Public Water System No. 3010035)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - West Orange, System No. 3010022
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - West Orange water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - West Orange
(Public Water System No. 3010022)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Yorba Linda, System No. 3010070
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Yorba Linda water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Yorba Linda
(Public Water System No. 3010070)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN MCINNES
GENERAL MANAGER
GOLETA WATER DISRICT, System No. 4210004
4699 Hollister Avenue
GOLETA, CA 93110

Dear: JOHN MCINNES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLETA WATER DISRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLETA WATER DISRICT
(Public Water System No. *4210004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

257. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

258. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

259. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

260. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

261. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

262. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

263. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

264. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

289. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

290. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

291. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

292. The water system may stop lead sampling at a school if:

yyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbb. If requested in writing by the school's authorized school representative.

293. The water system is responsible for the following costs:

mmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

294. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

295. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

296. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffff. The date of the request;

gggggg. The date of the initial meeting;

hhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiii. The date of initial lead sampling and all repeat samples.

297. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. John Roeder
Great Oaks Water Company, Inc., System No. 4310022
20 Great Oaks Blvd. Suite 120
San Jose, CA 95119

Dear Mr. Roeder:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Great Oaks Water Company, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Great Oaks Water Company, Inc.
(Public Water System No. *4310022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GREEN ACRES MOBILE HOME ESTATES
Public Water System No. *1000229*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_031**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Kevin Francis
General Manager
Green Valley Cwd
39520 Calle Cascada
Green Valley, CA 91390

Dear Kevin Francis:

System No: 1910244 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Green Valley Cwd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910244 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910244 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Green Valley Cwd

Los Angeles County
System No. 1910244

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Green Valley Cwd
Public Water System No. *1910244*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Richard Mull, Manager
Green Valley MWC
System No. 3610023
P. O. Box 8300
Green Valley Lake, CA 92341

Dear: Richard Mull,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Green Valley MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Green Valley MWC
(Public Water System No. *3610023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mel Johnson, General Manager
Greenfield County Water District, System No. 1510024
551 Taft Highway
Bakersfield, CA 93307

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mel Johnson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Greenfield County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Greenfield County Water District
(Public Water System No. *1510024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Helen Erb
Board Secretary
Grier Mutual Water Co., System No. 5400728
P.O. Box 73
Camp Nelson, CA 93208

Dear: Helen Erb

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Grier Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Grier Mutual Water Co.
(Public Water System No. 5400728)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510009
January 17, 2017

JOHN STERLING, OPERATIONS MANAGER
GROVELAND COMMUNITY SERV DIST
18966 FERRETTI ROAD P.O. BOX 350
GROVELAND, CA 95321

Dear JOHN STERLING,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GROVELAND COMMUNITY SERV DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GROVELAND COMMUNITY SERV DIST
(Public Water System No.: *5510009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

281. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

282. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

283. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

284. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

285. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

286. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

287. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

288. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

316. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

317. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

318. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

319. The water system may stop lead sampling at a school if:

kkkkkk. All initial samples are less than or equal to 15 ppb; or

llllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnn. If requested in writing by the school's authorized school representative.

320. The water system is responsible for the following costs:

sss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

321. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

322. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

323. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuu. The date of the request;

vvvvvvv. The date of the initial meeting;

wwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxx. The date of initial lead sampling and all repeat samples.

324. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

561. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
562. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
563. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
564. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
565. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
566. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
567. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

568. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
569. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
570. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
571. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
572. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
573. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
574. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
575. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
576. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

246. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
247. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
248. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

249. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
250. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
251. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
252. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
178. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
179. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
180. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
110. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
111. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

112. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

246. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
247. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
248. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
249. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
250. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
251. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
252. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GREG RAY
PW DIRECTOR
GROVER BEACH WATER DEPARTMENT, System No. 4010004
154 South 8th Street
GROVER BEACH, CA 93483

Dear: GREG RAY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GROVER BEACH WATER DEPARTMENT
(Public Water System No. *4010004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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53. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

54. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

55. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

56. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

55. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

56. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

57. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

58. The water system may stop lead sampling at a school if:

y. All initial samples are less than or equal to 15 ppb; or

z. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bb. If requested in writing by the school's authorized school representative.

59. The water system is responsible for the following costs:

m. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

n. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

60. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

61. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

62. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    ee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    ff. The date of the request;

    gg. The date of the initial meeting;

    hh. The date of the sampling plan along with a copy of each sampling plan; and

    ii. The date of initial lead sampling and all repeat samples.

63. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Perry Dahlstrom
District Manager
Golden State Water Company - Calipatria, System No. 1310003
13608 Hitt Road
Apple Valley, CA 92308

Dear Perry Dahlstrom:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Calipatria water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Calipatria
(Public Water System No. *1310003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - EDNA, System No. 4010023
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - EDNA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - EDNA
(Public Water System No. *4010023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

169. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

170. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

171. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

172. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

173. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

174. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

175. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

176. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

190. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

191. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

192. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

193. The water system may stop lead sampling at a school if:

gggg. All initial samples are less than or equal to 15 ppb; or

hhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjj. If requested in writing by the school's authorized school representative.

194. The water system is responsible for the following costs:

qq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

195. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

196. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

197. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccc. The date of the request;

ddddd. The date of the initial meeting;

eeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffff. The date of initial lead sampling and all repeat samples.

198. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - LAKE MARIE, System No. 4210022
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - LAKE MARIE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

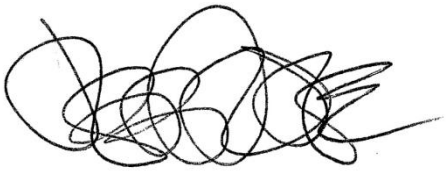

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - LAKE MARIE

(Public Water System No. *4210022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

369. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

370. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

371. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

372. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

373. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

374. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

375. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

376. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

415. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

416. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

417. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

418. The water system may stop lead sampling at a school if:

cccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffffffff. If requested in writing by the school's authorized school representative.

419. The water system is responsible for the following costs:

oooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

420. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

421. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

422. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxx. The date of the request;

yyyyyyyyy. The date of the initial meeting;

zzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaa. The date of initial lead sampling and all repeat samples.

423. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Artesia
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910004 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Artesia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910250 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910250 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Artesia

Los Angeles County
System No. 1910004

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Artesia
Public Water System No. *1910004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710002

Paul Schubert
District Manager
Golden State Water Company - Bay Point
3005 Gold Canal Dr
Rancho Cordova, CA 95670-6129

Dear Paul Schubert:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Bay Point water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Bay Point
(Public Water System No. *CA0710002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Bell, Bell Gardens
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910011 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Bell, Bell Gardens water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910011 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910011 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Bell, Bell Gardens

Los Angeles County
System No. 1910011

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Bell, Bell Gardens
Public Water System No. *1910011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC - Claremont
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910024 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC - Claremont water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910024 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910024 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC - Claremont

Los Angeles County
System No. 1910024

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC - Claremont
Public Water System No. *1910024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Culver City
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910030 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Culver City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910030 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910030 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Culver City

Los Angeles County
System No. 1910030

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Culver City
Public Water System No. *1910030*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY-CYPRESS RIDGE, System No. 4010040
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY-CYPRESS RIDGE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY-CYPRESS RIDGE
(Public Water System No. *4010040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

209. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

210. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

211. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

212. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

213. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

214. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

215. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

216. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

235. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

236. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

237. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

238. The water system may stop lead sampling at a school if:

aaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

liii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

liv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddd. If requested in writing by the school's authorized school representative.

239. The water system is responsible for the following costs:

aaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

240. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

241. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

242. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbb. The date of the request;

cccccc. The date of the initial meeting;

dddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeee. The date of initial lead sampling and all repeat samples.

243. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Florence/Graham
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910077 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Florence/Graham water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910077 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910077 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Florence/Graham

Los Angeles County
System No. 1910077

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Florence/Graham
Public Water System No. *1910077*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Hollydale
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910195 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Hollydale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910195 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910195 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Hollydale

Los Angeles County
System No. 1910195

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Hollydale
Public Water System No. *1910195*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - LOS OSOS, System No. 4010017
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - LOS OSOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - LOS OSOS

(Public Water System No. *4010017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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150. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

151. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

163. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

164. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

165. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

166. The water system may stop lead sampling at a school if:

uuu. All initial samples are less than or equal to 15 ppb; or

vvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

www. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxx. If requested in writing by the school's authorized school representative.

167. The water system is responsible for the following costs:

kk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

168. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

169. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

170. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnn. The date of the request;

oooo. The date of the initial meeting;

pppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqq. The date of initial lead sampling and all repeat samples.

171. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - NIPOMO, System No. 4010018
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - NIPOMO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - NIPOMO
(Public Water System No. *4010018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

153. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

154. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

155. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

156. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

157. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

158. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

159. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

160. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

172. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

173. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

174. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

175. The water system may stop lead sampling at a school if:

yyy. All initial samples are less than or equal to 15 ppb; or

zzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbb. If requested in writing by the school's authorized school representative.

176. The water system is responsible for the following costs:

mm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

177. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

178. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

179. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssss. The date of the request;

tttt. The date of the initial meeting;

uuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvv. The date of initial lead sampling and all repeat samples.

180. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Norwalk
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910098 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Norwalk water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910098 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910098 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Norwalk

Los Angeles County
System No. 1910098

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Norwalk
Public Water System No. *1910098*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - OJAI, System No. 5610014
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - OJAI water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

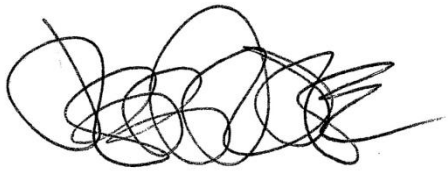

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - OJAI
(Public Water System No. *5610014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

665. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

666. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

667. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

668. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

669. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

670. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

671. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

672. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

748. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

749. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

750. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

751. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

752. The water system is responsible for the following costs:

kkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

753. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

754. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

755. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaaaaaaa. The date of the request;

bbbbbbbbbbbbbbbb. The date of the initial meeting;

ccccccccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

ddddddddddddddddd. The date of initial lead sampling and all repeat samples.

756. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - ORCUTT, System No. 4210016
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - ORCUTT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - ORCUTT
(Public Water System No. *4210016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

321. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

322. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

323. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

324. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

325. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

326. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

327. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

328. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

361. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

362. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

363. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

364. The water system may stop lead sampling at a school if:

eeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhh. If requested in writing by the school's authorized school representative.

365. The water system is responsible for the following costs:

cccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

366. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

367. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

368. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttt. The date of the request;

uuuuuuuu. The date of the initial meeting;

vvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwww. The date of initial lead sampling and all repeat samples.

369. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-San Dimas
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910142 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-San Dimas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910142 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910142 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-San Dimas

Los Angeles County
System No. 1910142

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-San Dimas
Public Water System No. *1910142*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - SIMI VALLEY, System No. 5610059
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - SIMI VALLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - SIMI VALLEY

(Public Water System No. *5610059*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

825. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

826. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

827. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

828. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

829. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

830. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

831. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

832. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

928. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

929. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

930. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

931. The water system may stop lead sampling at a school if:

wwwwwwwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

932. The water system is responsible for the following costs:

yyyyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

933. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

934. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

935. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvvvvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwwwwwwwwwwwwww. The date of the request;

xxxxxxxxxxxxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyyyyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzzzzzzzzzzzz. The date of initial lead sampling and all repeat samples.

936. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-South Arcadia
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910212 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-South Arcadia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910212 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910212 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-South Arcadia

Los Angeles County
System No. 1910212

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-South Arcadia
Public Water System No. *1910212*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-South San Gabriel
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910223 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-South San Gabriel water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910223 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910223 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-South San Gabriel

Los Angeles County
System No. 1910223

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-South San Gabriel
Public Water System No. *1910223*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Willowbrook
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910072 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Willowbrook water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910072 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910072 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Willowbrook

Los Angeles County
System No. 1910072

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Willowbrook
Public Water System No. *1910072*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Randy Breault
Guadalupe Valley Municipal Improvement District, System No. 4110005
50 Park Place
Brisbane, CA 94005

Dear Mr. Breault:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Guadalupe Valley Municipal Improvement District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Guadalupe Valley Municipal Improvement District
(Public Water System No. *4110005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MICHAEL PENA
PW SUPERVISOR
GUADALUPE WATER DEPARTMENT, System No. 4210003
918 OBISPO STREET
GUADALUPE, CA 93434

Dear: MICHAEL PENA

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GUADALUPE WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GUADALUPE WATER DEPARTMENT
(Public Water System No. *4210003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

249. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

250. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

251. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

252. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

253. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

254. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

255. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

256. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

280. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

281. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

282. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

283. The water system may stop lead sampling at a school if:

uuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxx. If requested in writing by the school's authorized school representative.

284. The water system is responsible for the following costs:

kkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

lll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

285. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

286. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

287. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaa. The date of the request;

bbbbbbb. The date of the initial meeting;

ccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddd. The date of initial lead sampling and all repeat samples.

288. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HAMMONDS RANCH
Public Water System No. *1009281*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_085**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS HEADQUARTERS
Public Water System No. *1009027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_071**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS SOUTH #101-144
Public Water System No. *1009028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_072**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS/HORSE BARN
Public Water System No. *1000213*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_030**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FEEDING COMPANY
Public Water System No. *1009078*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_075**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jennifer Hodges, Admin & Financial
Havasu WC
System No. 3610017
P.O. Box 1690
Havasu Lake, CA 92363

Dear: Jennifer Hodges,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Havasu WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Havasu WC
(Public Water System No. *3610017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
Hawthorne-City Water Dept.
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910047- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hawthorne-City Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hawthorne-City Water Dept.
Public Water System No. *1910047*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Laura Fischer
General Manager
Heber Public Utility District, System No. 1310007
1078 Dogwood Rd. #103
Heber, CA 92249

Dear Laura Fischer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Heber Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Heber Public Utility District
(Public Water System No. *1310007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kimberly Cox, General Manager
Helendale Community Service District
System No. 3610112
P.O. Box 359
Helendale, CA 92342

Dear: Kimberly Cox,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Helendale Community Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Helendale Community Service District
(Public Water System No. *3610112*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Carlos Lugo
General Manager
Helix Water District, System No. 3710010
7811 University Ave.
La Mesa, CA 91941

Dear Carlos Lugo:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Helix Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HELM SCHOOL
Public Water System No. *1000186*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_027**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

JOHN DORNELLAS
GENERAL MANAGER
HERITAGE RANCH CSD, System No. 4010012
4870 HERITAGE ROAD
PASO ROBLES, CA 93446

Dear: JOHN DORNELLAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HERITAGE RANCH CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HERITAGE RANCH CSD
(Public Water System No. *4010012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

113. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

114. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

115. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

116. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

117. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

118. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

119. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

120. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

127. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

128. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

129. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

130. The water system may stop lead sampling at a school if:

eee. All initial samples are less than or equal to 15 ppb; or

fff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhh. If requested in writing by the school's authorized school representative.

131. The water system is responsible for the following costs:

cc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

132. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

133. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

134. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ttt. The date of the request;

uuu. The date of the initial meeting;

vvv. The date of the sampling plan along with a copy of each sampling plan; and

www. The date of initial lead sampling and all repeat samples.

135. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Herlong Public Utility District
(Public Water System No. 1805007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Faherty, Acting Pw Director
Hesperia WD
System No. 3610024
9700 Seventh Ave
Hesperia, CA 92345

Dear: Mark Faherty,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hesperia WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hesperia WD
(Public Water System No. *3610024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ed Muzik, General Manager
Hi Desert WD
System No. 3610073
55439 29 Palms Hwy.
Yucca Valley, CA 92284

Dear: Ed Muzik,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hi Desert WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hi Desert WD
(Public Water System No. *3610073*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710015

Kirk Cloyd, General Manager
Hidden Valley Lake Community Services District
19400 Hartmann Road
Hidden Valley Lake, CA 95467-8371

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710015

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Kirk Cloyd:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Hidden Valley Lake Community Services District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710015

cc:

Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hidden Valley Lake Community Services District
(Public Water System No. 1710015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710015/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lu Marcos, Owner
Highland Mobile Home Park
System No. 1410007
1440 Mac Gregor
Bishop, CA 93514

Dear: Lu Marcos,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Highland Mobile Home Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Highland Mobile Home Park
(Public Water System No. *1410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710003

Jeff Davis, General Manager
Highlands Mutual Water Company
14580 Lakeshore Drive
Clearlake, CA 95422

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jeff Davis:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Highlands Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710003

cc:

Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Highlands Mutual Water Company
(Public Water System No. 1710003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Paul Willis
Hillsborough Water Department, System No. 4110016
1600 Floribunda Avenue
Hillsborough, CA 94010

Dear Mr. Willis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hillsborough Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hillsborough Water Department
(Public Water System No. *4110016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Fitzgerald
Director of Asset Management
Hillsview Homes, System No. 5010007
P.O. Box 581918
Modesto, CA 95352

Dear : Mr. Fitzgerald

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hillsview Homes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hillsview Homes
(Public Water System No. 5010007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010012
January 17, 2017

JAMES FOSTER, MANAGER
HILLVIEW WATER CO-RAYMOND
PO BOX 2269
OAKHURST, CA 93644

Dear JAMES FOSTER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILLVIEW WATER CO-RAYMOND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILLVIEW WATER CO-RAYMOND
(Public Water System No.: *2010012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

65. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

66. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

67. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

68. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

69. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

70. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

71. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

72. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

73. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

74. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

75. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

76. The water system may stop lead sampling at a school if:

gg. All initial samples are less than or equal to 15 ppb; or

hh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jj. If requested in writing by the school's authorized school representative.

77. The water system is responsible for the following costs:

q. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

r. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

78. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

79. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

80. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    oo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    pp. The date of the request;

    qq. The date of the initial meeting;

    rr. The date of the sampling plan along with a copy of each sampling plan; and

    ss. The date of initial lead sampling and all repeat samples.

81. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

129. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
130. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
131. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
132. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
133. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
134. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
135. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

136. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
137. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
138. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
139. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
140. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
141. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
142. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
143. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
144. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

57. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
58. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
59. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

60. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
61. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
62. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
63. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

41. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
42. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
43. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
44. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
45. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
29. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
30. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

31. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

57. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
58. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
59. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
60. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
61. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
62. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
63. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010007
January 17, 2017

JAMES FOSTER, MANAGER
HILLVIEW WC-OAKHURST/SIERRA LAKES
PO BOX 2269
OAKHURST, CA 93644

Dear JAMES FOSTER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILLVIEW WC-OAKHURST/SIERRA LAKES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILLVIEW WC-OAKHURST/SIERRA LAKES
(Public Water System No.: *2010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

41. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

42. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

43. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

44. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

45. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

46. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

47. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

48. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

46. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

47. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

48. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

49. The water system may stop lead sampling at a school if:

u. All initial samples are less than or equal to 15 ppb; or

v. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

w. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

x. If requested in writing by the school's authorized school representative.

50. The water system is responsible for the following costs:

k. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

l. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

51. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

52. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

53. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    z. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    aa. The date of the request;

    bb. The date of the initial meeting;

    cc. The date of the sampling plan along with a copy of each sampling plan; and

    dd. The date of initial lead sampling and all repeat samples.

54. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

81. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
82. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
83. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
84. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
85. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
86. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
87. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

88. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
89. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
90. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
91. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
92. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
93. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
94. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
95. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
96. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
38. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

39. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
40. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
41. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
42. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

26. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
27. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
28. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
29. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
30. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
20. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
21. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

22. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
38. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
39. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
40. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
41. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
42. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410012
January 17, 2017

CURTIS JORRITSMA, GENERAL MANAGER
HILMAR COUNTY WATER DISTRICT
P.O. Box 1060
HILMAR, CA 95324

Dear CURTIS JORRITSMA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILMAR COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILMAR COUNTY WATER DISTRICT
(Public Water System No.: *2410012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

193. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

194. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

195. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

196. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

197. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

198. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

199. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

200. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

217. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

218. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

219. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

220. The water system may stop lead sampling at a school if:

ssss. All initial samples are less than or equal to 15 ppb; or

tttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

l. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvv. If requested in writing by the school's authorized school representative.

221. The water system is responsible for the following costs:

ww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

222. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

223. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

224. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrr. The date of the request;

sssss. The date of the initial meeting;

ttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuu. The date of initial lead sampling and all repeat samples.

225. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

385. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
386. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
387. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
388. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
389. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
390. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
391. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

392. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
393. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
394. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
395. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
396. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
397. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
398. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
399. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
400. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

169. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
170. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
171. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

172. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
173. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
174. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
175. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

121. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
122. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
123. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
124. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
125. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
77. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
78. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

79. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

169. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
170. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
171. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
172. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
173. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
174. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
175. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Alex Chavez
Interim Public Works Director
City of Holtville, System No. 1310005
121 W. 5TH ST.
Holtville, CA 92250

Dear Alex Chavez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Holtville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Holtville
(Public Water System No. *1310005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Home Garden Community Services District, System No. 1610007
11677 2nd Place
Hanford, CA 93230

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Home Garden Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Home Garden Community Services District
(Public Water System No. *1610007*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

David Vigil
General Manager
Home Gardens County Water District, System No. 3310018
3832 N. Grant St.
Corona, CA 92879

Dear David Vigil:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Home Gardens County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Home Gardens County Water District
(Public Water System No. 3310018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

AMADOR COUNTY COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

PHONE: (209) 223-6439
FAX: (209) 223-6228
WEBSITE: www.amadorgov.org
EMAIL: ACEH@amadorgov.org

COUNTY ADMINISTRATION CENTER • 810 COURT STREET • JACKSON, CA 95642-2132

January 18, 2017

MR. DAVID ZIC, PRESIDENT
HOPE FOUNDATION
P.O. BOX 930
RANCHO MURIETA, CA 95683

Dear Mr. Zic:

ISSUANCE OF PERMIT AMENDMENT 0300062PA-2017-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hope Foundation water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Michelle Opalenik

Michelle Opalenik
WATER SYSTEM PROGRAM COORDINATOR
LOCAL PRIMACY AGENCY

Enclosure: 0300062PA-2017-SCHOOLS

cc: District Engineer, Stockton Branch (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HOPE FOUNDATION
(Public Water System No. 0300062)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **0300062PA-2017-SCHOOLS**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and

mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Director, Amador County Environmental Health Department
Local Primacy Agency

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310010

David Redding, General Manager, Operator
Hopland Public Utility District
151 Laws Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Redding:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Hopland Public Utility District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310010

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hopland Public Utility District
(Public Water System No. 2310010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310010/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810001

Karl Fernandez, Operator
Howell Mountain Mutual Water Company
P.O. Box 9
Angwin, CA 94508

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karl Fernandez:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Howell Mountain Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810001

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Howell Mountain Mutual Water Company
(Public Water System No. 2810001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HUME LAKE CHRISTIAN CAMPS, INC
Public Water System No. *1010013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_089**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Michael Ackerman
City Engineer
Huntington Park-City, Water Dept.
6550 Miles Ave
Huntington Park, CA 90255

Dear Michael Ackerman:

System No. 1910049- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Huntington Park-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Huntington Park-City, Water Dept.
Public Water System No. *1910049*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Carol Warren
Board Member
Hynes Estates Mutual Water Company, System No. 3000519
11732 Court Lane
Anaheim, CA 92804

Dear Ms. Warren:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hynes Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hynes Estates Mutual Water Company
(Public Water System No. 3000519)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

John Hoagland
Interim General Manager
Idyllwild Water District, System No. 3310019
25945 State Highway 243
Idyllwild, CA 92549

Dear John Hoagland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Idyllwild Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Idyllwild Water District
(Public Water System No. 3310019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jackie Loper
Public Services Director
City of Imperial, System No. 1310006
420 South Imperial Ave.
Imperial, CA 92251

Dear Jackie Loper:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Imperial water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Imperial
(Public Water System No. *1310006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Improvement District #1, System No. 5400968
P.O. Box 482
Three Rivers, CA 93271

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Improvement District #1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Improvement District #1
(Public Water System No. 5400968)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Terry Tye, General Manager
Indian Creek CSD
System No. 1410005
P.O. Box 952
Bishop, CA 92315

Dear: Terry Tye,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indian Creek CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indian Creek CSD
(Public Water System No. *1410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

IVCSD Crescent Mills
(Public Water System No. 3200510)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

IVCSD-Greenville
(Public Water System No. 3210001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Zdeba, General Manager
Indian Wells Valley Water District
P. O. Box 1329
Ridgecrest, CA 93556

Dear Mr. Zdeba:

ISSUANCE OF PERMIT AMENDMENT: 1510017-2017PA_SCHOOLS (System No. 1510017)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indian Wells Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510017-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Renee Morquecho, Indian Wells VWD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indian Wells Valley Water District
(Public Water System No. 1510017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510017-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brian Macy
General Manager
Indio Water Authority, System No. 3310020
83-101 Avenue 45
Indio, CA 92201

Dear Brian Macy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indio Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indio Water Authority
(Public Water System No. 3310020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110001

Ken Eichstaedt, General Manager
Inverness Public Utility District
P.O. Box 469
Inverness, CA 94937

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ken Eichstaedt:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Inverness Public Utility District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110001

cc: Jonathan Van Bourg, P.O. Box 469, Inverness, CA 94937
Marin County Environmental Health Department (email)

2110001/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inverness Public Utility District
(Public Water System No. 2110001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Shannon Williams, Deputy Dir Pub Works
Inyo County PWD - Independence
System No. 1410008
P.O. Drawer Q
Independence, CA 93526

Dear: Shannon Williams,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyo County PWD - Independence water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyo County PWD - Independence
(Public Water System No. *1410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Shannon Williams, Deputy Dir Pub Works
Inyo County PWD - Lone Pine
System No. 1410009
P.O. Drawer Q
Independence, CA 93526

Dear: Shannon Williams,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyo County PWD - Lone Pine water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyo County PWD - Lone Pine
(Public Water System No. *1410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Hollis Elmquist, GM/Secretary
Inyokern Community Services District
P.O. Box 1418
Inyokern, CA 93527

Dear Mr. Elmquist:

ISSUANCE OF PERMIT AMENDMENT: 1510036-2017PA_SCHOOLS (System No. 1510036)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyokern Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510036-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Carl Dorey, Inyokern CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyokern Community Services District
(Public Water System No. 1510036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510036-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Andrew Pust
Ironwood Campground
LPA ID: 3601015
49191 Cherokee Rd
Newberry Springs, CA 92365

Dear Mr. Pust,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Ironwood Campground water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Ironwood Campground

System No. 3601015

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Rodolfo Perez
Regulatory Compliance Senior Scientist
Irvine Ranch Water District, System No. 3010092
P.O. Box 57000
Irvine, CA 92619

Dear Mr. Perez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Irvine Ranch Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Irvine Ranch Water District
(Public Water System No. 3010092)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Ivanhoe Public Utility Dist., System No. 5410019
P.O. Box A
Ivanhoe, CA 93235

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ivanhoe Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ivanhoe Public Utility District
(Public Water System No. 5410019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Richard Alcorn
Board Chairman
Jacumba Community Sanitation District, System No. 3710011
P.O. Box 425
Jacumba, CA 91934

Dear Richard Alcorn:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Jacumba Community Sanitation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Jacumba Community Sanitation District
(Public Water System No. *3710011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
Joint Regional Water Supply System, System No. 3010071
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Joint Regional Water Supply System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Joint Regional Water Supply System
(Public Water System No. 3010071)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Curt Sauer, General Manager
Joshua Basin Water District
System No. 3610025
P.O. Box 675
Joshua Tree, CA 92252

Dear: Curt Sauer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Joshua Basin Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Joshua Basin Water District
(Public Water System No. *3610025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Harry Seifert
General Manager
Julian Community Services District, System No. 3700909
P.O. Box 681
Julian, CA 92036

Dear Harry Seifert:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Julian Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Julian Community Services District
(Public Water System No. *3700909*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paula Welch, General Manager
June Lake PUD - Down Canyon
System No. 2610004
P.O. Box 99
June Lake, CA 93529

Dear: Paula Welch,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the June Lake PUD - Down Canyon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

June Lake PUD - Down Canyon
(Public Water System No. *2610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paula Welch, General Manager
June Lake PUD Village
System No. 2610002
P.O. Box 99
June Lake, CA 93529

Dear: Paula Welch,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the June Lake PUD Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

June Lake PUD Village
(Public Water System No. *2610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Denise Johnson, General Manager
Juniper Riviera CWD
System No. 3600222
P.O. Box 386
Apple Valley, CA 92307

Dear: Denise Johnson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Juniper Riviera CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Juniper Riviera CWD
(Public Water System No. *3600222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Todd Corbin
General Manager
Jurupa Community Services District, System No. 3310021
11201 Harrel St.
Jurupa Valley, CA 91752

Dear Todd Corbin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Jurupa Community Services District
(Public Water System No. 3310021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

JUVENILE JUSTICE CAMPUS
Public Water System No. *1000570*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_065**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710007

Tracy Cline, Compliance Coordinator
Kelseyville Co Waterworks District 3
230 N. Main Street
Lakeport, CA 95453

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tracy Cline:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Kelseyville Co Waterworks District 3 (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710007

cc: Lynn Prescott, 230 N. Main Street, Lakeport, CA 95453
Lake County Environmental Health Department (email)

1710007/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kelseyville Co Waterworks District 3
(Public Water System No. 1710007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710007/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910025

Karen Ball, General Manager
Kenwood Village Water Company (PUC)
4982 Sonoma Highway
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910025

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karen Ball:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Kenwood Village Water Company (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910025

cc: Sonoma County Environmental Health Department (email)

4910025/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kenwood Village Water Company (PUC)
(Public Water System No. 4910025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910025/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Rosa Maldonado, Manager
Kettleman City Community Services District, System No. 1610009
P.O. Box 179
Kettleman City, CA 93239

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rosa Maldonado:

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kettleman City Community Services District
(Public Water System No. *1610009*

By The

State Water Resources Control Board

Division of Drinking Water

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Ernie Garza
General Manager
Keyes CSD, System No. 5010009
P.O. Box 699
Keyes, CA 95328

Dear : Mr. Garza

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Keyes CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Keyes Community Services District
(Public Water System No. 5010009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KINGS CANYON MOBILE HOME PARK
Public Water System No. *1000267*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_040**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KINGS PARK APARTMENTS
Public Water System No. *1000295*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_042**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Royetta Brandt
Kings River Estates Mutual Water Co., System No. 5400536
3069 Bonander Avenue
Kingsburg, CA 93631

Dear: Royetta Brandt

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Kings River Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kings River Estates Mutual Water Co.
(Public Water System No. 5400536)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Melvin Matthews
General Manager
Kinneloa Irrigation Dist.
1999 Kinclair Drive
Pasadena, CA 91107

Dear Melvin Matthews:

System No: 1910035 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Kinneloa Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910035 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910035 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Kinneloa Irrigation Dist.

Los Angeles County
System No. 1910035

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kinneloa Irrigation Dist.
Public Water System No. *1910035*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710004

Todd Tommeraason
District Engineer
Knights Landing Services District, System No. 5710004
608 Court Street
Woodland, CA 95695

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Knights Landing Services District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710004

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Knights Landing Services District
Public Water System
(Public Water System No. 5710004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710004**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710006

Ray Carmen, Vice President
Konocti County Water District
15844 35th Avenue
Clearlake, CA 95422

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ray Carmen:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Konocti County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710006

cc: Frank Costner, General Manager, 15844 35th Avenue, Clearlake, CA 95422
Tom Parks, Lead Operator, 15844 35th Avenue, Clearlake, CA 95422
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Konocti County Water District
(Public Water System No. 1710006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE WALKER
WATER MANAGER
KROTONA INSTITUTE, System No. 5601401
60 Krotona Street
OJAI, CA 93023

Dear: STEVE WALKER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the KROTONA INSTITUTE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

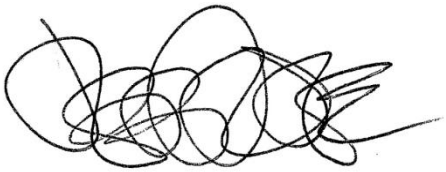

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KROTONA INSTITUTE
(Public Water System No. *5601401*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

505. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

506. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

507. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

508. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

509. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

510. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

511. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

512. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

568. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

569. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

570. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

571. The water system may stop lead sampling at a school if:

sssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvv. If requested in writing by the school's authorized school representative.

572. The water system is responsible for the following costs:

wwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

573. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

574. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

575. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

dddddddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeeeeeeee. The date of the request;

fffffffffffff. The date of the initial meeting;

gggggggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhhhhhh. The date of initial lead sampling and all repeat samples.

576. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Douglas Caister
Manager/Secretary
La Canada Irrigation District
P.O. Box 39
La Canada, CA 91012

Dear: Douglas Caister

System No: 1910054 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Canada Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at:
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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910054 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910054 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Canada Irrigation District
Public Water System No. *1910054*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Seferino Holguin
Chief Plant Operator
La Cima Fire Center, System No. 3710802
15108 Sunrise Hwy.
Julian, CA 92036

Dear Seferino Holguin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Cima Fire Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Cima Fire Center
(Public Water System No. *3710802*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MIKE ALVARADO
GENERAL MANAGER
LA CUMBRE MUTUAL WATER CO, System No. 4210024
695 VIA TRANQUILA
SANTA BARBARA, CA 93110

Dear: MIKE ALVARADO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LA CUMBRE MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LA CUMBRE MUTUAL WATER CO
(Public Water System No. *4210024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

377. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

378. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

379. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

380. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

381. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

382. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

383. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

384. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

424. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

425. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

426. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

427. The water system may stop lead sampling at a school if:

gggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjj. If requested in writing by the school's authorized school representative.

428. The water system is responsible for the following costs:

qqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

429. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

430. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

431. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

cccccccccc. The date of the request;

dddddddddd. The date of the initial meeting;

eeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

ffffffffff. The date of initial lead sampling and all repeat samples.

432. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Greg Galindo
General Manager
La Puente Valley County Water District
112 N. First Street
La Puente, CA 91744

Dear: Greg Galindo

System No: 1910060 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Puente Valley County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910060 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910060 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Puente Valley County Water District
Public Water System No. *1910060*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Puente Valley County Water District
Public Water System No. *1910060*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 21-Kagel Canyon
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910075 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 21-Kagel Canyon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910075 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910075 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 21-Kagel Canyon
Public Water System No. *1910075*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co WW District 29 & 80-Malib
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910204 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co WW District 29 & 80-Malib water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910204 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910204 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co WW District 29 & 80-Malib
Public Water System No. *1910204*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co WW Dist 36-Val Verde
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910185 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co WW Dist 36-Val Verde water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910185 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910185 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co WW Dist 36-Val Verde
Public Water System No. *1910185*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 37-Acton
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910248 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 37-Acton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910248 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910248 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 37-Acton
Public Water System No. *1910248*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 4 & 34-Lancaster
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910070 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 4 & 34-Lancaster water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910070 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910070 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 4 & 34-Lancaster
Public Water System No. *1910070*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles CWWD 40, R24, 27,33-Pearblsm
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910203 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles CWWD 40, R24, 27,33-Pearblsm water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910203 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

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1910203 Permit No: 2017PA_SCHOOLS 20170117

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STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles CWWD 40, R24, 27,33-Pearblsm
Public Water System No. *1910203*

By The

State Water Resources Control Board

Division of Drinking Water

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8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Cwwd 40 Reg. 35 - N.E. L.A.
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910027 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Cwwd 40 Reg. 35 - N.E. L.A. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910027 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910027 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Cwwd 40 Reg. 35 - N.E. L.A.
Public Water System No. *1910027*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 40 Reg 38 Lake La
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910005 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 40 Reg 38 Lake La water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910005 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910005 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 40 Reg 38 Lake La
Public Water System No. *1910005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Cwwd 40 Reg. 39-Rock Creek
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910025 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Cwwd 40 Reg. 39-Rock Creek water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910025 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910025 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Cwwd 40 Reg. 39-Rock Creek
Public Water System No. *1910025*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Renae Hinchey
General Manager
Laguna Beach County Water District, System No. 3010017
P.O. Box 987
Laguna Beach, CA 92652

Dear Ms. Hinchey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Laguna Beach County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Laguna Beach County Water District
(Public Water System No. 3010017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kimi Johnson
General Manager
Lake Alpine Water Company, System No. 0210001
P.O. Box 5013
Bear Valley, CA 95223

Dear: Ms. Johnson,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Alpine Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Alpine Water Company
(Public Water System No. 0210001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Leo Havener, General Manager
LACSD - Rimforest
System No. 3610045
P.O. Box 700
Lake Arrowhead, CA 92352

Dear: Leo Havener,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LACSD - Rimforest water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LACSD - Rimforest
(Public Water System No. *3610045*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Catherine Cerri, General Manager
Lake Arrowhead CSD
System No. 3610005
P.O. Box 700
Lake Arrowhead, CA 92352

Dear: Catherine Cerri,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Arrowhead CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Arrowhead CSD
(Public Water System No. *3610005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510008
January 17, 2017

PETE KAMPA, GENERAL MANAGER
LAKE DON PEDRO CSD
9751 Merced Falls Road
LA GRANGE, CA 95329

Dear PETE KAMPA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LAKE DON PEDRO CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAKE DON PEDRO CSD
(Public Water System No.: *5510008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

273. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

274. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

275. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

276. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

277. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

278. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

279. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

280. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

307. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

308. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

309. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

310. The water system may stop lead sampling at a school if:

ggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjj. If requested in writing by the school's authorized school representative.

311. The water system is responsible for the following costs:

qqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

312. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

313. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

314. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ppppppp. The date of the request;

qqqqqqq. The date of the initial meeting;

rrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

sssssss. The date of initial lead sampling and all repeat samples.

315. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

545. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
546. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
547. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
548. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
549. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
550. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
551. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

552. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
553. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
554. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
555. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
556. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
557. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
558. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
559. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
560. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

239. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
240. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
241. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

242. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
243. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
244. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
245. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

171. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
172. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
173. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
174. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
175. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
107. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
108. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

109. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

239. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
240. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
241. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
242. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
243. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
244. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
245. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Thomas Wagoner
General Manager
Lake Hemet Municipal Water District, System No. 3310022
P.O. Box 5039
26385 Fairview Ave.
Hemet, CA 92544

Dear Thomas Wagoner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Hemet Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Hemet Municipal Water District
(Public Water System No. 3310022)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Debbie Loseth, Office Manager
Lake Isabella Community Services Dist.
P.O. Box 647
Lake Isabella, CA 93240

Dear Ms. Loseth:

ISSUANCE OF PERMIT AMENDMENT: 1503270-2017PA_SCHOOLS (System No. 1503270)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Isabella Community Services Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1503270-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Justin Slinkard, Erskine Creek WC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Isabella Community Services Dist.
(Public Water System No. 1503270)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1503270-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Karen Russell
Operations Manager
Lake Morena Oak Shores Mutual Water Company, System No. 3700923
PO Box 315
Campo, CA 91906

Dear Karen Russell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Morena Oak Shores Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Morena Oak Shores Mutual Water Company
(Public Water System No. *3700923*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Pam Jarecki, Office Manager
Lake of the Woods Mutual Water Co.
7025 Cuddy Valley Rd. Unit F
Frazier Park, CA 93225

Dear Ms. Jarecki:

ISSUANCE OF PERMIT AMENDMENT: 1510023-2017PA_SCHOOLS (System No. 1510023)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake of the Woods Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510023-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Jude Urueta, Lake of the Woods MWC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake of the Woods Mutual Water Co.
(Public Water System No. 1510023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510023-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sam Parham
Owner
Lake Success Mobile Lodge, System No. 5400660
30464 Highway 190, Space #1A
Porterville, CA 93257

Dear: Sam Parham

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Success Mobile Lodge water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Success Mobile Lodge
(Public Water System No. 5400660)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brett Sanders
General Manager
Lakeside Water District, System No. 3710013
10375 Vine Street
Lakeside, CA 92040

Dear Brett Sanders:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lakeside Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakeside Water District
(Public Water System No. *3710013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC; Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAKEVIEW IMPROVEMENT ASSOCIATION #1
Public Water System No. *1000071*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_023**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Rolando Marquez, Chief Operator
Lamont Public Utility District, System No. 1510012
8624 Segrue Road
Lamont, CA 93241

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rolando Marquez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lamont Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lamont Public Utility District
(Public Water System No. *1510012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LANARE COMMUNITY SERVICES DIST
Public Water System No. *1000053*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_013**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAS DELTAS MUTUAL WATER SYSTEM
Public Water System No. *1000054*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_014**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

William Kimberling
General Manager
Las Flores Water Company
428 E. Sacramento St.
Altadena, CA 91001

Dear: William Kimberling

System No: 1910061 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Las Flores Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910061 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910061 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Las Flores Water Company
Public Water System No. *1910061*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David W. Pedersen
General Manager
Las Virgenes MWD
4232 Las Virgenes Road
Calabasas, CA 91302

Dear David W. Pedersen:

System No. 1910225- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Las Virgenes MWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Las Virgenes MWD
Public Water System No. *1910225*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lassen County Water District #1
(Public Water System No. 1810003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Graham Dobson
Water Treatment Operator
LASSEN VNP - HEADQUARTERS, System No. 5210503
P.O. BOX 100
MINERAL, CA 96063

Dear : Graham Dobson

ISSUANCE OF PERMIT AMENDMENT 86-031

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LASSEN VNP - HEADQUARTERS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

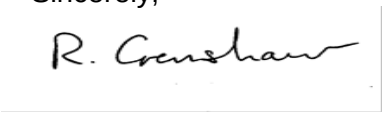

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 86-031

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LASSEN VNP - HEADQUARTERS
(Public Water System No. *5210503*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***86-031***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LATON COMMUNITY SERVICES DISTRICT
Public Water System No. *1010020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_093**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310011

Jim Shields, District Manager
Laytonville County Water District
P.O. Box 32
Laytonville, CA 95454

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Shields:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Laytonville County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310011

cc: Mendocino County Environmental Health Department (email)

2310011/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Laytonville County Water District
(Public Water System No. 2310011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310011/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410011
January 17, 2017

RICHARD KILGORE, PW SUPERINTENDENT
LE GRAND COMM SERVICES DIST
13038 E. JEFFERSON ST.
LE GRAND, CA 95333

Dear RICHARD KILGORE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LE GRAND COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LE GRAND COMM SERVICES DIST
(Public Water System No.: *2410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

185. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

186. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

187. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

188. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

189. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

190. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

191. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

192. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

208. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

209. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

210. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

211. The water system may stop lead sampling at a school if:

oooo. All initial samples are less than or equal to 15 ppb; or

pppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrr. If requested in writing by the school's authorized school representative.

212. The water system is responsible for the following costs:

uu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

213. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

214. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

215. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmm. The date of the request;

nnnnn. The date of the initial meeting;

ooooo. The date of the sampling plan along with a copy of each sampling plan; and

ppppp. The date of initial lead sampling and all repeat samples.

216. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

369. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
370. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
371. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
372. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
373. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
374. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
375. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

376. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
377. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
378. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
379. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
380. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
381. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
382. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
383. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
384. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

162. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
163. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
164. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

165. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
166. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
167. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
168. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

116. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
117. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
118. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
119. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
120. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
74. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
75. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

76. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

162. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
163. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
164. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
165. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
166. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
167. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
168. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Leavitt Lake CSD
(Public Water System No. 1810004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Hightower Sr., Board President
Lebec County Water District
P.O. Box 910
Lebec, CA 93243

Dear Mr. Hightower Sr.:

ISSUANCE OF PERMIT AMENDMENT: 1510051-2017PA_SCHOOLS (System No. 1510051)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lebec County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510051-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Michael Hightower Jr., Lebec CWD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lebec County Water District
(Public Water System No. 1510051)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510051-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Lemon Cove Water Co., System No. 5400616
P.O. Box 44374
Lemon Cove, CA 93244

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lemon Cove Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lemon Cove Water Co.
(Public Water System No. 5400616)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Michael Costello
Manager
Liberty Park Water Association, System No. 3000618
7922 Speer Ave.
Huntington Beach, CA 92647

Dear Mr. Costello:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Park Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Park Water Association
(Public Water System No. 3000618)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Bellflower-Norwalk
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910211- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Bellflower-Norwalk water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Bellflower-Norwalk
Public Water System No. *1910211*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Compton
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910021- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Compton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Compton
Public Water System No. *1910021*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Lynwood
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910161- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Lynwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Lynwood
Public Water System No. *1910161*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSIE CASTILLO
PROPERTY MANAGER
LIMONEIRA CO. - MCKEVETT, System No. 5601206
1141 CUMMINGS ROAD
SANTA PAULA, CA 93060

Dear: ROSIE CASTILLO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LIMONEIRA CO. - MCKEVETT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LIMONEIRA CO. - MCKEVETT
(Public Water System No. *5601206*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

497. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

498. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

499. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

500. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

501. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

502. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

503. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

504. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

559. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

560. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

561. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

562. The water system may stop lead sampling at a school if:

oooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrr. If requested in writing by the school's authorized school representative.

563. The water system is responsible for the following costs:

uuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

564. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

565. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

566. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzzzzzzz. The date of the request;

aaaaaaaaaaaa. The date of the initial meeting;

bbbbbbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

cccccccccccc. The date of initial lead sampling and all repeat samples.

567. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSIE CASTILLO
PROPERTY MANAGER
LIMONEIRA RANCH #1, System No. 5601201
1141 CUMMINGS ROAD
SANTA PAULA, CA 93060

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Santa Barbara District Engineer
SWRCB – Division of Drinking Water

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cc: Local County Environmental Health Department (email)

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(Public Water System No. *5601201*)

By The

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Division of Drinking Water

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493. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

494. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

495. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

496. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

550. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

551. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

552. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

553. The water system may stop lead sampling at a school if:

kkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

lllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnn. If requested in writing by the school's authorized school representative.

554. The water system is responsible for the following costs:

sssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

555. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

556. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

557. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttttttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuuuuuuu. The date of the request;

vvvvvvvvvvvv. The date of the initial meeting;

wwwwwwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxxxxxxx. The date of initial lead sampling and all repeat samples.

558. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Hayward
General Manager
Lincoln Avenue Water Company
564 W. Harriet Street
Altadena, CA 91001

Dear: Robert Hayward

System No: 1910063 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lincoln Avenue Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910063 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910063 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lincoln Avenue Water Company
Public Water System No. *1910063*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Brian Davis
General Manager
LINDA COUNTY WATER DISTRICT, System No. 5810002
1280 Scales Street
MARYSVILLE, CA 95901

Dear : Brian Davis

ISSUANCE OF PERMIT AMENDMENT 010296P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LINDA COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

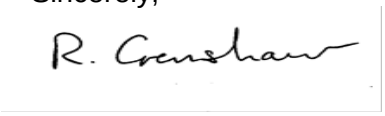

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010296P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LINDA COUNTY WATER DISTRICT
(Public Water System No. *5810002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010296P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LINDA VISTA FARMS
Public Water System No. *1000445*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_056**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Tom McCoy
General Manager
Linden County Water District, System No. 3910019
P.O. Box 595
Linden, CA 95236

Dear : Mr. McCoy

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Linden County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Linden County Water District
(Public Water System No. 3910019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Kugler
Executive Director
Linnell Farm Labor Center, System No. 5400631
5140 West Cypress
Visalia, CA 93279

Dear: Ken Kugler

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Linnell Farm Labor Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Linnell Farm Labor Center
(Public Water System No. 5400631)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Richard Hiwa, General Manager
Little Bear Water Company, System No. 2710016
51201 Pine Canyon Road, SP. 125
King City, CA. 93930

Dear Mr. Hiwa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Little Bear Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LITTLE BEAR WATER COMPANY
(Public Water System No. *2710016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Travis Berglund
General Manager
Littlerock Creek Irrigation Dist.
35141 North 87Th Street East
Littlerock, CA 93543

Dear Travis Berglund:

System No: 1910064 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Littlerock Creek Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910064 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910064 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Littlerock Creek Irrigation Dist.

Los Angeles County
System No. 1910064

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Littlerock Creek Irrigation Dist.
Public Water System No. *1910064*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joe Salzman
District Manager
Lockeford Community Services District, System No. 3910008
P.O. Box 809
Lockeford, CA 95237

Dear: Mr. Salzman,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lockeford Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lockeford Community Services District
(Public Water System No. 3910008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

February 24, 2017

Wendy Roth
Loma Linda Power Plant
LPA ID: 3600152
Loma Linda Power Plant
11100 Anderson St
Loma Linda, CA 92350

Dear Ms. Roth,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Loma Linda Power Plant water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Loma Linda University

System No. 3600152

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GENE MARGHEIM
WATER SUPERINTENDENT
LOMPOC-CITY WATER UTILITY DIV, System No. 4210006
601 EAST NORTH AVENUE
LOMPOC, CA 93436

Dear: GENE MARGHEIM

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOMPOC-CITY WATER UTILITY DIV water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOMPOC-CITY WATER UTILITY DIV
(Public Water System No. *4210006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

273. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

274. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

275. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

276. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

277. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

278. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

279. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

280. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

307. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

308. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

309. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

310. The water system may stop lead sampling at a school if:

ggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjj. If requested in writing by the school's authorized school representative.

311. The water system is responsible for the following costs:

qqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

312. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

313. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

314. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ppppppp. The date of the request;

qqqqqqq. The date of the initial meeting;

rrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

sssssss. The date of initial lead sampling and all repeat samples.

315. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5500057
January 17, 2017

RALPH FEOLA,
LONG BARN PROPERTY OWNERS
P.O.BOX 260
LONG BARN, CA 95335

Dear RALPH FEOLA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LONG BARN PROPERTY OWNERS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LONG BARN PROPERTY OWNERS
(Public Water System No.: *5500057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

225. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

226. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

227. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

228. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

229. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

230. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

231. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

232. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

253. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

254. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

255. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

256. The water system may stop lead sampling at a school if:

iiiii. All initial samples are less than or equal to 15 ppb; or

jjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllll. If requested in writing by the school's authorized school representative.

257. The water system is responsible for the following costs:

eee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

258. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

259. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

260. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllll. The date of the request;

mmmmmm. The date of the initial meeting;

nnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooo. The date of initial lead sampling and all repeat samples.

261. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

449. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
450. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
451. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
452. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
453. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
454. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
455. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

456. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
457. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
458. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
459. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
460. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
461. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
462. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
463. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
464. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

197. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
198. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
199. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

200. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
201. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
202. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
203. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
143. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
144. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
145. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
89. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
90. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

91. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

197. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
198. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
199. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
200. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
201. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
202. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
203. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KEVIN BARNARD
GENERAL MANAGER
LOS ALAMOS COMMUNITY SER DIST, System No. 4210002
P.O. BOX 675
LOS ALAMOS, CA 93440

Dear: KEVIN BARNARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS ALAMOS COMMUNITY SER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS ALAMOS COMMUNITY SER DIST
(Public Water System No. *4210002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

241. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

242. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

243. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

244. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

245. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

246. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

247. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

248. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

271. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

272. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

273. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

274. The water system may stop lead sampling at a school if:

qqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttt. If requested in writing by the school's authorized school representative.

275. The water system is responsible for the following costs:

iii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

276. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

277. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

278. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvv. The date of the request;

wwwwww. The date of the initial meeting;

xxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyy. The date of initial lead sampling and all repeat samples.

279. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Lowden
General Manager
LOS MOLINOS COMM. SERVICES DIST., System No. 5210003
P.O. BOX 9
LOS MOLINOS, CA 96055

Dear : James Lowden

ISSUANCE OF PERMIT AMENDMENT 010299P52001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS MOLINOS COMM. SERVICES DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

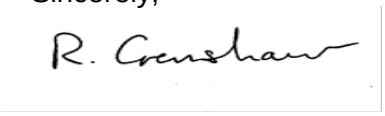

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010299P52001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS MOLINOS COMM. SERVICES DIST.
(Public Water System No. *5210003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010299P52001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

RENEE OSBORNE
GENERAL MANAGER
LOS OSOS COMMUNITY SERVICES DISTRICT, System No. 4010016
P.O. Box 6064
LOS OSOS, CA 93412

Dear: RENEE OSBORNE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS OSOS COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS OSOS COMMUNITY SERVICES DISTRICT
(Public Water System No. *4010016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

137. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

138. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

139. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

140. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

141. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

142. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

143. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

144. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

154. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

155. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

156. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

157. The water system may stop lead sampling at a school if:

qqq. All initial samples are less than or equal to 15 ppb; or

rrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttt. If requested in writing by the school's authorized school representative.

158. The water system is responsible for the following costs:

ii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

159. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

160. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

161. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiii. The date of the request;

jjjj. The date of the initial meeting;

kkkk. The date of the sampling plan along with a copy of each sampling plan; and

llll. The date of initial lead sampling and all repeat samples.

162. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Lost Hills Utility District, System No. 1510046
P. O. Box 246
Lost Hills, CA 93249

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lost Hills Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lost Hills Utility District
(Public Water System No. *1510046*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710010

Todd Fiora, Acting General Manager
Lower Lake County Water District
P.O. Box 263
Lower Lake, CA 95423

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Todd Fiora:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lower Lake County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710010

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lower Lake County Water District
(Public Water System No. 1710010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service..

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710010/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 1710005

Sophie James, Director of WQ
Lucerne Water Co. - Cal Water Service
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lucerne Water Co. - Cal Water Service (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710005

cc: John Graham, 2222 Dr. Martin Luther King Jr. Pkwy, Chico, CA 95928
Darrin McCosker, P.O. Box 1133, Lucerne, CA 95458
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lucerne Water Co. - Cal Water Service
(Public Water System No. 1710005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910007

Danny Lukins
President
Lukins Brothers Water Company, System No. 0910007
2031 West Way
South Lake Tahoe, CA 96150

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lukins Brothers Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910007

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lukins Brothers Water Company
Public Water System
(Public Water System No. 0910007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910007**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Felix Contreras
President of Board Operations
Lynwood Park Mutual Water Company
2644 E. 124Th Street
Compton, CA 90222

Dear: Felix Contreras

System No: 1910081 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lynwood Park Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910081 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910081 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lynwood Park Mutual Water Company
Public Water System No. *1910081*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jose Molina
Manager Utility Serv
Lynwood-City, Water Dept.
11330 Bullis Road
Lynwood, CA 90262

Dear Jose Molina:

System No. 1910079- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lynwood-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010008
January 17, 2017

PHIL TOLER, SPECIAL DIST MANAGER
MADERA CO MD #10A - MADERA RANCHOS
200 WEST 4TH ST., THIRD FLOOR
MADERA, CA 93637

Dear PHIL TOLER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA CO MD #10A - MADERA RANCHOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA CO MD #10A - MADERA RANCHOS
(Public Water System No.: *2010008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

49. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

50. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

51. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

52. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

53. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

54. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

55. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

56. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

55. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

56. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

57. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

58. The water system may stop lead sampling at a school if:

y. All initial samples are less than or equal to 15 ppb; or

z. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bb. If requested in writing by the school's authorized school representative.

59. The water system is responsible for the following costs:

m. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

n. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

60. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

61. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

62. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    ee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    ff. The date of the request;

    gg. The date of the initial meeting;

    hh. The date of the sampling plan along with a copy of each sampling plan; and

    ii. The date of initial lead sampling and all repeat samples.

63. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

97. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
98. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
99. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
100. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
101. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
102. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
103. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

104. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
105. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
106. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
107. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
108. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
109. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
110. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
111. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
112. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

43. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
44. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
45. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

46. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
47. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
48. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
49. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

31. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
32. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
33. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
34. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
35. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
23. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
24. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

25. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

43. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
44. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
45. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
46. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
47. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
48. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
49. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010006
January 17, 2017

PHIL TOLER, SPECIAL DIST MANAGER
MADERA CO SA# 3 PARKSDALE
200 WEST 4TH ST., THIRD FLOOR
MADERA, CA 93637

Dear PHIL TOLER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA CO SA# 3 PARKSDALE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA CO SA# 3 PARKSDALE
(Public Water System No.: *2010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

33. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

34. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

35. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

36. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

37. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

38. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

39. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

40. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

37. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

38. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

39. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

40. The water system may stop lead sampling at a school if:

q. All initial samples are less than or equal to 15 ppb; or

r. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

x. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

s. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

t. If requested in writing by the school's authorized school representative.

41. The water system is responsible for the following costs:

i. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

j. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

42. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

43. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

44. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    u. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    v. The date of the request;

    w. The date of the initial meeting;

    x. The date of the sampling plan along with a copy of each sampling plan; and

    y. The date of initial lead sampling and all repeat samples.

45. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

65. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
66. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
67. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
68. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
69. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
70. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
71. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

72. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
73. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
74. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
75. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
76. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
77. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
78. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
79. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
80. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

29. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
30. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
31. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

32. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
33. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
34. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
35. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

21. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
22. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
23. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
24. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
25. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
17. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
18. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

19. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

29. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
30. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
31. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
32. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
33. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
34. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
35. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010010
January 17, 2017

GREG RODGERS, GENERAL MANAGER
MADERA VALLEY WATER COMPANY
18454 ROAD 26
MADERA, CA 93638

Dear GREG RODGERS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA VALLEY WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA VALLEY WATER COMPANY
(Public Water System No.: *2010010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

57. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

58. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

59. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

60. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

61. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

62. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

63. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

64. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

64. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

65. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

66. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

67. The water system may stop lead sampling at a school if:

cc. All initial samples are less than or equal to 15 ppb; or

dd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ff. If requested in writing by the school's authorized school representative.

68. The water system is responsible for the following costs:

o. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

p. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

69. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

70. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

71. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    jj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    kk. The date of the request;

    ll. The date of the initial meeting;

    mm. The date of the sampling plan along with a copy of each sampling plan; and

    nn. The date of initial lead sampling and all repeat samples.

72. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

113. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
114. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
115. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
116. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
117. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
118. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
119. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

120. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
121. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
122. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
123. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
124. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
125. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
126. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
127. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
128. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

50. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
51. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
52. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

53. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
54. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
55. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
56. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
38. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
39. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
40. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
26. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
27. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

28. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

50. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
51. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
52. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
53. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
54. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
55. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
56. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 20, 2017

Leo Refsland
MADISON SERVICE DISTRICT, SYSTEM NO. 5700571
PO BOX 40
MADISON CA 95653

Dear : Mr. Refsland,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Yolo County Environmental Health Divison, delegated by the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Madison Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chelsea Brown
Environmental Health Specialist
Yolo County Environmental Health Division

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Madison Service District
(Public Water System No. 5700571)

By The

Yolo County Environmental Health Division

Delegated By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jianmin Huang, REHS
Supervising Environmental Health Specialist

Chelsea Brown, EHS
Environmental Health Specialist I

Dated: 1/17/2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

David Shenk
General Manager
Majestic Pines Community Service District, System No. 3710041
P.O. BOX 266
Julian, CA 92036

Dear David Shenk:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Majestic Pines Community Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Majestic Pines Community Service District
(Public Water System No. *3710041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James D. Anderson, General Manager
Malaga County Water District, System No. 1010042
3580 S. Frank Street
Fresno, CA 93725

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear James D. Anderson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Malaga County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Malaga County Water District
(Public Water System No. *1010042*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Patrick Hayes, General Manager
Mammoth CWD
System No. 2610001
P.O. Box 597
Mammoth Lakes, CA 93546

Dear: Patrick Hayes,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mammoth CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mammoth CWD
(Public Water System No. *2610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MANNING GARDENS CARE CENTER INC
Public Water System No. *1000324*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_045**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/07/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James Hansen Jr., General Manager
Mariana Ranchos CWD
System No. 3610030
9600 Manzanita Street
Apple Valley, CA 92308

Dear: James Hansen Jr.,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mariana Ranchos CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mariana Ranchos CWD
(Public Water System No. *3610030*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110002

Paul Sellier
Marin Municipal Water District
220 Nellen Avenue
Corte Madera, CA 94925

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Sellier:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Marin Municipal Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110002

cc: Marin County Environmental Health Department (email)

2110002/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Marin Municipal Water District
(Public Water System No. 2110002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Keith Van Der Maaten, General Manager
Marina Coast Water District, System No. 2710017
11 Reservation Road
Marina, CA. 93933

Dear Mr. Van Der Maaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Marina Coast Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARINA COAST WATER DISTRICT
(Public Water System No. *2710017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2210001
January 17, 2017

MARK ROWNEY, GENERAL MANAGER
MARIPOSA PUBLIC UTILITY DIST
P.O. BOX 494
MARIPOSA, CA 95338

Dear MARK ROWNEY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MARIPOSA PUBLIC UTILITY DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Mariposa Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARIPOSA PUBLIC UTILITY DIST
(Public Water System No.: *2210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

73. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

74. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

75. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

76. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

77. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

78. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

79. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

80. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

82. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

83. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

84. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

85. The water system may stop lead sampling at a school if:

kk. All initial samples are less than or equal to 15 ppb; or

ll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nn. If requested in writing by the school's authorized school representative.

86. The water system is responsible for the following costs:

s. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

t. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

87. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

88. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

89. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    tt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    uu. The date of the request;

    vv. The date of the initial meeting;

    ww. The date of the sampling plan along with a copy of each sampling plan; and

    xx. The date of initial lead sampling and all repeat samples.

90. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

145. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
146. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
147. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
148. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
149. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
150. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
151. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

152. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
153. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
154. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
155. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
156. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
157. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
158. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
159. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
160. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

64. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
65. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
66. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

67. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
68. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
69. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
70. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

46. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
47. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
48. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
49. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
50. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
32. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
33. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

34. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

64. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
65. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
66. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
67. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
68. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
69. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
70. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARY LOU MOBILE HOME PARK
Public Water System No. *1000265*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_039**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Justin Brokaw, General Manager
Marygold MWC
System No. 3610028
9725 Alder Avenue
Bloomington, CA 92316

Dear: Justin Brokaw,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Marygold MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Marygold MWC
(Public Water System No. *3610028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Wadsworth
General Manager
MAXWELL PUBLIC UTILITY DISTRICT, System No. 610003
P.O. BOX 294
MAXWELL, CA 95955

Dear : David Wadsworth

ISSUANCE OF PERMIT AMENDMENT 51-005A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MAXWELL PUBLIC UTILITY DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

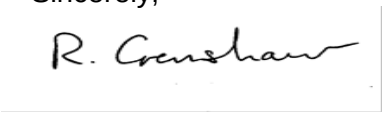

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 51-005A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MAXWELL PUBLIC UTILITY DISTRICT
(Public Water System No. *610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***51-005A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sergio Palos
General Manager
Maywood Mutual Water Co. #1
5953 Gifford Avenue
Huntington Park, CA 90255

Dear: Sergio Palos

System No: 1910084 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910084 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910084 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #1
Public Water System No. *1910084*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Steven Rojo
Field Operator
Maywood Mutual Water Co. #2
3521 E Slauson Ave
Maywood, CA 90270

Dear: Steven Rojo

System No: 1910085 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #2 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910085 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910085 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #2
Public Water System No. *1910085*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Rohlf
Director of Operations
Maywood Mutual Water Co. #3
6151 Heliotrope Avenue
Maywood, CA 90270

Dear: Robert Rohlf

System No: 1910086 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #3 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910086 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910086 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #3
Public Water System No. *1910086*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ray Shorey, President
Mcmahon Road Mutual Water Company, System No. 3500510
61 Carpenter Drive
Hollister, CA. 95023

Dear Mr. Shorey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mcmahon Road Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MCMAHON ROAD
MUTUAL WATER COMPANY
(Public Water System No. *3500510*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

• 200 W. 4th Street, Suite 3100
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• envhealth@madera-county.com

January 27, 2017

Madera County Public Works
Phil Toler
MD #33 Fairmead District, System No. 2000554
200 West Fourth Street
Madera, Ca 93637

Dear: Phil Toler

ISSUANCE OF PERMIT AMENDMENT PT0002644-2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MD #33 Fairmead District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Thongdy Madsen,
Registered Environmental Health Specialist II

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

Community and Economic Development
Environmental Health Division

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PERMIT AMENDMENT NO. **PT0002644 - 2016PA_SCHOOLS**

EFFECTIVE DATE: **December 20, 2016**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

And WHEREAS:

1. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

2. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

3. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight).

If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

4. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

5. If any school that is a customer of the water system submits a written request for assistance from the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school, to the water system, the water system is required by this permit amendment to meet with the school staff, develop a lead sampling plan, collect up to five samples from regularly used faucets at the school, submit the samples to a laboratory certified by the SWRCB's Environmental Laboratory Accreditation Program (ELAP) to analyze lead, and require the laboratory to submit the results to the SWRCB electronically and to provide a copy to the requesting school.

   Within 10 business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, the water system shall resample at that sample site. If the resample shows a result less than or equal to 15 ppb, the water system shall then collect a second repeat sample within 10 business days of the first resample.

   The water system shall collect at least one additional lead sample at each sample site where the school has completed some corrective action following an initial lead sample greater than 15 ppb. If the additional lead sample collected after completing some corrective action is at or below 15 ppb, the water system may discontinue lead sampling at the sample site. (Examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.) The water system is responsible for the cost of the samples, but not for any maintenance or corrective actions needed at the school.

6. The water system shall not release school lead sampling results to the public until at least 60 days after receipt of the results of the initial round of lead sampling and only after the water system has first discussed the results with the school. The water system is required to discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory. Following the 60-day period, the water system may post the school lead sampling results on their website.

   The water system shall include a statement to summarize the lead sampling at all schools served by the public water system within the annual Consumer Confidence Report to customers. The statement shall include the number of schools sampled and a link to the DDW Lead Sampling in California Schools website, which contains the results of the school lead sampling. All state regulations applicable to the content and distribution of the Consumer Confidence Report remain the same.

7. The authorized school representative may only request the lead sampling assistance outlined in this permit amendment one-time for each school. For each requested school, the water system is not obligated to continue to provide lead sampling assistance after the conditions of this permit amendment are satisfied.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Condition 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Condition 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Condition 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 01/27/2018

Thongdy Madsen,
Madera County,
Registered Environmental Health Specialist II

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

• 200 W. 4th Street, Suite 3100
• Madera, CA 93637
• (559) 675-7823
• FAX (559) 675-7919
• TDD (559) 675-8970
• envhealth@madera-county.com

January 27, 2017

Madera County Public Works
Phil Toler
MD #36 Eastin Arcola, System No. 2000727
200 West Fourth Street
Madera, Ca 93637

Dear: Phil Toler

ISSUANCE OF PERMIT AMENDMENT PT0002634-2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MD #36 Eastin Arcola water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Thongdy Madsen,
Registered Environmental Health Specialist II

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

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- Madera, CA 93637
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- FAX (559) 675-7919
- TDD (559) 675-8970
- envhealth@madera-county.com

PERMIT AMENDMENT NO. **PT0002634 - 2017PA_SCHOOLS**

EFFECTIVE DATE: **January 27, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 01/27/2018

Thongdy Madsen,
Madera County
Registered Environmental Health Specialist II

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEADOW LAKES CLUB
Public Water System No. *1000056*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_015**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Meadow Vista CWD
(Public Water System No. 3110009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provison 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2410008
January 17, 2017

DAVID WALKER, CEO
MEADOWBROOK WC
2272 MEADOWBROOK AVENUE
MERCED, CA 95348

Dear DAVID WALKER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MEADOWBROOK WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEADOWBROOK WC
(Public Water System No.: *2410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

161. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

162. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

163. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

164. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

165. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

166. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

167. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

168. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

181. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

182. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

183. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

184. The water system may stop lead sampling at a school if:

cccc. All initial samples are less than or equal to 15 ppb; or

dddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffff. If requested in writing by the school's authorized school representative.

185. The water system is responsible for the following costs:

oo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

186. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

187. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

188. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxx. The date of the request;

yyyy. The date of the initial meeting;

zzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaa. The date of initial lead sampling and all repeat samples.

189. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

321. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
322. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
323. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
324. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
325. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
326. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
327. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

328. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
329. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
330. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
331. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
332. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
333. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
334. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
335. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
336. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
143. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

144. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
145. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
146. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
147. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

101. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
102. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
103. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
104. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
105. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
65. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
66. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

67. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
143. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
144. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
145. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
146. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
147. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ken Toy, Board President
Meadow Creek Mutual Water Company
System No. 1400111
P.O. Box 1587
Bishop, CA 93514

Dear: Ken Toy,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Meadow Creek Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Meadow Creek Mutual Water Company
(Public Water System No. *1400111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MIKE HOLLEBRANDS
GENERAL MANAGER
MEINERS OAKS CWD, System No. 5610005
202 WEST EL ROBLAR DRIVE
OJAI, CA 93023

Dear: MIKE HOLLEBRANDS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

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Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEINERS OAKS CWD
(Public Water System No. *5610005*)

By The

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Division of Drinking Water

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614. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

615. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

616. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

685. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

686. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

687. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

688. The water system may stop lead sampling at a school if:

ssssssssssss. All initial samples are less than or equal to 15 ppb; or

tttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

689. The water system is responsible for the following costs:

wwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

690. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

691. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

692. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrrrrrrr. The date of the request;

sssssssssssssss. The date of the initial meeting;

tttttttttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuuuuuuu. The date of initial lead sampling and all repeat samples.

693. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Timothy Flynn
Manager/President
Mesa Crest Water Co.
4532 Rinetti Ln. Unit C
La Canada, CA 91011

Dear: Timothy Flynn

System No: 1910241 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mesa Crest Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910241 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910241 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mesa Crest Water Co.
Public Water System No. *1910241*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KARIN STADDON
REGIONAL MANAGER
MESA DUNES MOBILE HOME ESTATES, System No. 4000650
P.O. BOX 3670
ONTARIO, CA 91761

Dear: KARIN STADDON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MESA DUNES MOBILE HOME ESTATES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MESA DUNES MOBILE HOME ESTATES

(Public Water System No. *4000650*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

17. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

18. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

19. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

20. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

21. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

22. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

23. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

24. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

19. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

20. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

21. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

22. The water system may stop lead sampling at a school if:

i. All initial samples are less than or equal to 15 ppb; or

j. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

v. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

vi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

k. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

l. If requested in writing by the school's authorized school representative.

23. The water system is responsible for the following costs:

e. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

f. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

24. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

25. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

26. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    k. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    l. The date of the request;

    m. The date of the initial meeting;

    n. The date of the sampling plan along with a copy of each sampling plan; and

    o. The date of initial lead sampling and all repeat samples.

27. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Kaying Lee
Water Quality & Compliance Supervisor
Mesa Water District, System No. 3010004
1965 Placentia Ave
Costa Mesa, CA 92627

Dear Ms. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mesa Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mesa Water District
(Public Water System No. 3010004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRIAN YANEZ
INTERIM PW DIRECTOR
MIDDLE ROAD MUTUAL WATER CO, System No. 5601110
P.O. Box 569
SANTA PAULA, CA 93061

Dear: BRIAN YANEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MIDDLE ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MIDDLE ROAD MUTUAL WATER CO
(Public Water System No. *5601110*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

409. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

410. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

411. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

412. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

413. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

414. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

415. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

416. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

460. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

461. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

462. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

463. The water system may stop lead sampling at a school if:

wwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

civ. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzz. If requested in writing by the school's authorized school representative.

464. The water system is responsible for the following costs:

yyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

465. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

466. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

467. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwww. The date of the request;

xxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzz. The date of initial lead sampling and all repeat samples.

468. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Midland School Corporation
(Public Water System No. 4200618)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 24, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 12/20/2016

Deanna Talerico
Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Tammy Rudock
Mid-Peninsula Water District, System No. 4110001
3 Dairy Lane
Belmont, CA 94002

Dear Ms. Rudock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mid-Peninsula Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mid-Peninsula Water District
(Public Water System No. *4110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Jean Bauer
Secretary
Midway City Mutual Water Company, System No. 3010097
P.O. Box 11150
Westminster, CA 92685

Dear Ms. Bauer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Midway City Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Midway City Mutual Water Company
(Public Water System No. 3010097)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James R Carruth, Chief Operator
Mil Potrero Mutual Water Company
P.O. Box "W"
Pine Mountain Club, CA 93222

Dear Mr. Carruth:

ISSUANCE OF PERMIT AMENDMENT: 1510028-2017PA_SCHOOLS (System No. 1510028)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mil Potrero Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510028-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mil Potrero Mutual Water Company
(Public Water System No. 1510028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510028-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310006

William Koehler, General Manager
Millview County Water District
P.O. Box 399
Redwood Valley, CA 95470

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear William Koehler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Millview County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310006

cc: Mendocino County Environmental Health Department (email)

2310006/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Millview County Water District
(Public Water System No. 2310006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Frehse
General Manager
MINERAL COUNTY WATER DISTRICT, System No. 5200503
P. O. BOX 206
MINERAL, CA 96063

Dear : John Frehse

ISSUANCE OF PERMIT AMENDMENT 010201P52002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MINERAL COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

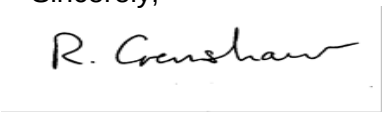

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010201P52002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MINERAL COUNTY WATER DISTRICT
(Public Water System No. *5200503*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010201P52002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

MICHAEL RILEY
GENERAL MANAGER
MISSION HILLS CSD, System No. 4210019
1550 EAST BURTON MESA BOULEVARD
LOMPOC, CA 93436

Dear: MICHAEL RILEY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MISSION HILLS CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MISSION HILLS CSD
(Public Water System No. *4210019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

345. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

346. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

347. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

348. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

349. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

350. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

351. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

352. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

388. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

389. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

390. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

391. The water system may stop lead sampling at a school if:

qqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttt. If requested in writing by the school's authorized school representative.

392. The water system is responsible for the following costs:

iiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

393. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

394. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

395. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiii. The date of the request;

jjjjjjjjj. The date of the initial meeting;

kkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

lllllllll. The date of initial lead sampling and all repeat samples.

396. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joseph Kovalik, Owner
Mission Oaks Mobile Home Park, System No. 3510006
1155 Redmond Avenue
San Jose, CA. 95120

Dear Mr. Kovalik:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mission Oaks Mobile Home Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MISSION OAKS MOBILE HOME PARK
(Public Water System No. *3510006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Arden Wallum
General Manager
Mission Springs Water District, System No. 3310008
66575 Second St.
Desert Hot Springs, CA 92240

Dear Arden Wallum:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mission Springs Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mission Spring Water District
(Public Water System No. 3310008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bee Coy Jr., General Manager
Mojave Public Utilities District
15844 K Street
Mojave, CA 93501

Dear Mr. Coy Jr.:

ISSUANCE OF PERMIT AMENDMENT: 1510014-2017PA_SCHOOLS (System No. 1510014)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mojave Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510014-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Dan Sackett, skOO'kum h2o monitoring, inc. (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mojave Public Utilities District
(Public Water System No. 1510014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510014-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report, shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tina Cherry
Director
Monrovia-City, Water Dept.
415 S Ivy Ave
Monrovia, CA 91016

Dear Tina Cherry:

System No. 1910090- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monrovia-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monrovia-City, Water Dept.
Public Water System No. *1910090*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Clemens Heldmaier
Montara Water and Sanitary District, System No. 4110010
P.O. Box 370131
Montara, CA 94037

Dear Mr. Heldmaier:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montara Water and Sanitary District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Kinsey, General Manager
Monte Vista CWD
System No. 3610029
P.O. Box 71
Montclair, CA 91763

Dear: Mark Kinsey,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monte Vista CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monte Vista CWD
(Public Water System No. *3610029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Bradbury
General Manager
Montebello Land & Water Co.
344 E. Madison Ave., P.O. Box 279
Montebello, CA 90640

Dear: Kenneth Bradbury

System No: 1910091 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montebello Land & Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910091 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910091 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Montebello Land & Water Co.
Public Water System No. *1910091*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Diprimio
VP Engineering, Ops
Montebello-City, Water Dept.
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910117- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montebello-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Montebello-City, Water Dept.
Public Water System No. *1910117*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

NICHOLAS TURNER
GENERAL MANAGER
MONTECITO WATER DIST, System No. 4210007
583 San Ysidro Road
SANTA BARBARA, CA 93108

Dear: NICHOLAS TURNER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MONTECITO WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

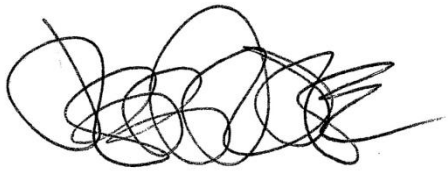

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MONTECITO WATER DIST
(Public Water System No. *4210007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

281. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

282. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

283. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

284. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

285. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

286. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

287. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

288. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

316. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

317. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

318. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

319. The water system may stop lead sampling at a school if:

kkkkkk. All initial samples are less than or equal to 15 ppb; or

llllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnn. If requested in writing by the school's authorized school representative.

320. The water system is responsible for the following costs:

sss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

321. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

322. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

323. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuu. The date of the request;

vvvvvvv. The date of the initial meeting;

wwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxx. The date of initial lead sampling and all repeat samples.

324. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROB LIVICK
PUBLIC SERVICES DIRECTOR
MORRO BAY PW DEPT - WATER DIVISION, System No. 4010011
955 Shasta Avenue
MORRO BAY, CA 93442

Dear: ROB LIVICK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MORRO BAY PW DEPT - WATER DIVISION water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

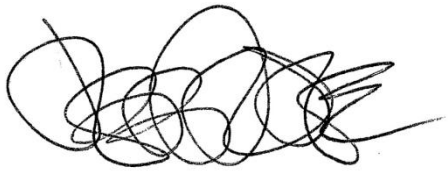

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MORRO BAY PW DEPT - WATER DIVISION
(Public Water System No. *4010011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

105. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

106. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

107. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

108. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

109. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

110. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

111. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

112. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

118. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

119. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

120. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

121. The water system may stop lead sampling at a school if:

aaa. All initial samples are less than or equal to 15 ppb; or

bbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddd. If requested in writing by the school's authorized school representative.

122. The water system is responsible for the following costs:

aa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

123. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

124. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

125. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ooo. The date of the request;

ppp. The date of the initial meeting;

qqq. The date of the sampling plan along with a copy of each sampling plan; and

rrr. The date of initial lead sampling and all repeat samples.

126. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GEORGE BRETT
PRESIDENT
MORRO ROCK MUTUAL WATER CO, System No. 4010015
PO Box 757
CAYUCOS, CA 93430

Dear: GEORGE BRETT

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MORRO ROCK MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MORRO ROCK MUTUAL WATER CO
(Public Water System No. *4010015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

129. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

130. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

131. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

132. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

133. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

134. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

135. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

136. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

145. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

146. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

147. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

148. The water system may stop lead sampling at a school if:

mmm. All initial samples are less than or equal to 15 ppb; or

nnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppp. If requested in writing by the school's authorized school representative.

149. The water system is responsible for the following costs:

gg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

150. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

151. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

152. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddd. The date of the request;

eeee. The date of the initial meeting;

ffff. The date of the sampling plan along with a copy of each sampling plan; and

gggg. The date of initial lead sampling and all repeat samples.

153. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Joone Lopez
General Manager
Moulton Niguel Water District, System No. 3010073
27500 La Paz Road
Laguna Niguel, CA 92677

Dear Ms. Lopez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Moulton Niguel Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Moulton Niguel Water District
(Public Water System No. 3010073)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Nader Shareghi
Public Works Manager
Mountain House Community Services District, System No. 3910027
230 South Sterling Drive, Suite 100
Mountain House, CA 95391

Dear : Mr. Shareghi

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain House Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain House Community Services District
(Public Water System No. 3910027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Kissack, Owner
Mountain Mesa Water Company
P.O. Box 2431
Bakersfield, CA 93303

Dear Mr. Kissack:

ISSUANCE OF PERMIT AMENDMENT: 1510042-2017PA_SCHOOLS (System No. 1510042)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain Mesa Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at:
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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510042-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain Mesa Water Company
(Public Water System No. 1510042)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510042-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kent Goodrich
Owner
Mountain View Duplexes, System No. 5400604
31159 Meadow Lark Lane
Springville, CA 93265

Dear: Kent Goodrich

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain View Duplexes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain View Duplexes
(Public Water System No. 5400604)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Johnson
Gen. Manager
Mountain View MHP, System No. 5400819
P.O. Box 3025
Visalia, CA 93278

Dear: Stephen Johnson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain View MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain View MHP
(Public Water System No. 5400819)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2210901
January 17, 2017

LARRY HARRIS, DIST UTILITIES MGR.
MPWD-COULTERVILLE CSA 1
4639 Ben Hur Road
MARIPOSA, CA 95338

Dear LARRY HARRIS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MPWD-COULTERVILLE CSA 1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Mariposa Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MPWD-COULTERVILLE CSA 1
(Public Water System No.: *2210901*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

81. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

82. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

83. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

84. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

85. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

86. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

87. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

88. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

91. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

92. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

93. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

94. The water system may stop lead sampling at a school if:

oo. All initial samples are less than or equal to 15 ppb; or

pp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rr. If requested in writing by the school's authorized school representative.

95. The water system is responsible for the following costs:

u. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

v. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

96. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

97. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

98. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    yy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    zz. The date of the request;

    aaa. The date of the initial meeting;

    bbb. The date of the sampling plan along with a copy of each sampling plan; and

    ccc. The date of initial lead sampling and all repeat samples.

99. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

161. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
162. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
163. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
164. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
165. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
166. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
167. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

168. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
169. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
170. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
171. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
172. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
173. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
174. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
175. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
176. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
73. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

74. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
75. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
76. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
77. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

51. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
52. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
53. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
54. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
55. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
35. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
36. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

37. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
73. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
74. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
75. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
76. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
77. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MT ARARAT MOBILE HOME PARK
Public Water System No. *1000257*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_036**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Richard Wismer, Manager
Mt Baldy Homeowners Assn.
System No. 3610033
P. O. Box 611
Mt. Baldy, CA 91759

Dear: Richard Wismer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mt Baldy Homeowners Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mt Baldy Homeowners Assn.
(Public Water System No. *3610033*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dale Pollock, Facility Engineer
Mt. Hermon Association, Inc., System No. 4410008
PO Box 413
Mount Hermon, CA. 95041

Dear Mr. Pollock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mt. Hermon Association, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MT. HERMON ASSOCIATION, INC.
(Public Water System No. *4410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710014

Alan Farr, Operations Manager
Mt. Konocti Mutual Water Company
9733 State Highway 281
Kelseyville, CA 95451

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Alan Farr:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Mt. Konocti Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710014

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mt. Konocti Mutual Water Company
(Public Water System No. 1710014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710014/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MURRIETA/HERNANDEZ FARMS
Public Water System No. *1000585*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_066**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kenneth Lambert, President
Muscoy MWC No. 1
System No. 3610031
2167 Darby St
San Bernardino, CA 92407

Dear: Kenneth Lambert,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Muscoy MWC No. 1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Muscoy MWC No. 1
(Public Water System No. *3610031*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK CREEK TRACT ASSOCIATION
Public Water System No. *1000058*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_017**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichtl, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK HEIGHTS MUTUAL
Public Water System No. *1000059*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_018**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK MEADOWS #1
Public Water System No. *1000060*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_019**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

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2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK MEADOWS #2
Public Water System No. *1000061*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_020**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

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         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

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Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

TIM BEAN
GENERAL MANAGER
NACIMIENTO WATER COMPANY, System No. 4010027
2890 Saddle Way
BRADLEY, CA 93426

Dear: TIM BEAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NACIMIENTO WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NACIMIENTO WATER COMPANY
(Public Water System No. *4010027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

193. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

194. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

195. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

196. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

197. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

198. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

199. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

200. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

217. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

218. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

219. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

220. The water system may stop lead sampling at a school if:

ssss. All initial samples are less than or equal to 15 ppb; or

tttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

l. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvv. If requested in writing by the school's authorized school representative.

221. The water system is responsible for the following costs:

ww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

222. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

223. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

224. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrr. The date of the request;

sssss. The date of the initial meeting;

ttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuu. The date of initial lead sampling and all repeat samples.

225. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

William Kagele
Water Program Manager
Naval Air Facility El Centro, System No. 1310700
1605 Third Street, Building 504
El Centro, CA 92243

Dear William Kagele:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Naval Air Facility El Centro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Naval Air Facility El Centro
(Public Water System No. *1310700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joseph Pharo, Public Works Production Director
Lemoore Naval Air Station, System No. 1610700
750 Enterprise Ave
Lemoore, CA 93246

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joseph Pharo:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lemoore Naval Air Station water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lemoore Naval Air Station
(Public Water System No. *1610700*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Donald Chuck
Nasa Ames Research Center, System No. 4300997
Nasa - Ames Research Center M/S 204-15, N-204, Rm 100
Moffett Field, CA 94035

Dear Mr. Chuck:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nasa Ames Research Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nasa Ames Research Center
(Public Water System No. *4300997*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jason Golumbfskie-Jones
Environmental Director
Naval Air Station North Island & Naval Amphibious Base Coronado, System No. 3710750
Env. Div. Naval Base Coronado PWO Bldg 3
PO Box 357088
San Diego, CA 92135-7089

Dear Jason Golumbfskie-Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Naval Air Station North Island & Naval Amphibious Base Coronado water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Naval Air Station North Island & Naval Amphibious Base Coronado
(Public Water System No. *3710750*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ALICIA THOMPSON
WATER PRGM MANAGER
NAVAL BASE VENTURA COUNTY, POINT MUGU, System No. 5610700
311 MAIN RD STE 1, BLDG 632 CODE N45V
POINT MUGU, CA 93042

Dear: ALICIA THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NAVAL BASE VENTURA COUNTY, POINT MUGU water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NAVAL BASE VENTURA COUNTY, POINT MUGU

(Public Water System No. *5610700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

873. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

874. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

875. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

876. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

877. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

878. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

879. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

880. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

982. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

983. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

984. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

985. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

986. The water system is responsible for the following costs:

kkkkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

lllllllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

987. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

988. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

989. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzzzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaaaaaaaaaaaa. The date of the request;

bbbbbbbbbbbbbbbbbbbbb. The date of the initial meeting;

ccccccccccccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddddddddddddddddddd. The date of initial lead sampling and all repeat samples.

990. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ALICIA THOMPSON
WATER PRGM MANAGER
NAVAL BASE VENTURA COUNTY, PORT HUENEME, System No. 5610701
311 MAIN RD STE 1, BLDG 632 CODE N45V
POINT MUGU, CA 93042

Dear: ALICIA THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NAVAL BASE VENTURA COUNTY, PORT HUENEME water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NAVAL BASE VENTURA COUNTY, PORT HUENEME

(Public Water System No. *5610701*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

881. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

882. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

883. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

884. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

885. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

886. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

887. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

888. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

991. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

992. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

993. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

994. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

995. The water system is responsible for the following costs:

mmmmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

996. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

997. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

998. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffffffffffffff. The date of the request;

gggggggggggggggggggg. The date of the initial meeting;

hhhhhhhhhhhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiiiiiiiiiiii. The date of initial lead sampling and all repeat samples.

999. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910004

Fred Waymire
Superintendent
Nevada Irrigation District – E. George, Banner Mountain, System No. 2910004
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – E. George, Banner Mountain public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910004

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – E. George, Banner Mountain
Public Water System
(Public Water System No. 2910004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910004**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910014

Fred Waymire
Superintendent
Nevada Irrigation District – Lake of Pines, System No. 2910014
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – Lake of Pines public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910014

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – Lake of Pines
Public Water System
(Public Water System No. 2910014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910014**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website. .

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910023

Fred Waymire
Superintendent
Nevada Irrigation District – Lake Wildwood, System No. 2910023
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – Lake Wildwood public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910023

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – Lake Wildwood
Public Water System
(Public Water System No. 2910023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910023**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910006

Fred Waymire
Superintendent
Nevada Irrigation District – Loma Rica, System No. 2910006
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – Loma Rica public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910006

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – Loma Rica
Public Water System
(Public Water System No. 2910006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910006**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3110026

Fred Waymire
Superintendent
Nevada Irrigation District – North Auburn, System No. 3110026
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3110026

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – North Auburn public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3110026

cc: Placer County Environmental Health (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – North Auburn
Public Water System
(Public Water System No. 3110026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3110026**
EFFECTIVE DATE**: January 18, 2017**

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NEW AUBERRY WATER ASSOCIATION
Public Water System No. *1000063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_021**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NEW HORIZONS MOBILE/RV PARK
Public Water System No. *1000259*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_037**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

MARIO IGLESIAS
GENERAL MANAGER
NIPOMO COMM SERVICES DIST, System No. 4010026
148 South Wilson Street
NIPOMO, CA 93444

Dear: MARIO IGLESIAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NIPOMO COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NIPOMO COMM SERVICES DIST
(Public Water System No. *4010026*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

185. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

186. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

187. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

188. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

189. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

190. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

191. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

192. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

208. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

209. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

210. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

211. The water system may stop lead sampling at a school if:

oooo. All initial samples are less than or equal to 15 ppb; or

pppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrr. If requested in writing by the school's authorized school representative.

212. The water system is responsible for the following costs:

uu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

213. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

214. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

215. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

llll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmm. The date of the request;

nnnnn. The date of the initial meeting;

ooooo. The date of the sampling plan along with a copy of each sampling plan; and

ppppp. The date of initial lead sampling and all repeat samples.

216. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Normco Water Company, System No. 2700511
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Normco Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NORMCO WATER COMPANY
(Public Water System No. *2700511*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Cari Lemke
North Coast County Water District, System No. 4110025
P.O. Box 1039
Pacifica, CA 94044

Dear Ms. Lemke:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Coast County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Coast County Water District
(Public Water System No. *4110025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dollie Kostopoulos, General Manager
North Edwards Water District
13525 Fran Street
North Edwards, CA 93523

Dear Ms. Kostopoulos:

ISSUANCE OF PERMIT AMENDMENT: 1510052-2017PA_SCHOOLS (System No. 1510052)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Edwards Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510052-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Edwards Water District
(Public Water System No. 1510052)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510052-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kevin Skeen
Board President
North Kaweah Mutual Water Co., System No. 5400506
P.O. Box 94
Three Rivers, CA 93271

Dear: Kevin Skeen

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Kaweah Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Kaweah Mutual Water Co.
(Public Water System No. 5400506)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110003

Chris Degabriele
North Marin Water District
P.O. Box 146
Novato, CA 94948

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Chris Degabriele:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the North Marin Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110003

cc: Marin County Environmental Health Department (email)

2110003/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Marin Water District
(Public Water System No. 2110003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2110006

Chris Degabriele
North Marin WD - Pt. Reyes
P.O. Box 146
Novato, CA 94948

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Chris Degabriele:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the North Marin WD - Pt. Reyes (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110006

cc: Marin County Environmental Health Department (email)

2110006/Permit
170117 PA School Cover Letter/EMS

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ron Carr
Assistant General Manager
North Perris Water System, System No. 3310082
101 North D St.
Perris, CA 92570

Dear Ron Carr:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Perris Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Perris Water System
(Public Water System No. 3310082)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Tahoe PUD - Main
(Public Water System No. 3110001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Jeff Maupin
Manager
NORTH YUBA WATER DISTRICT, System No. 5810006
8691 LaPorte RD.
PO Box 299
BROWNSVILLE, CA 95919

The number 72-003A3 is incorrect. This is the 2nd amendment to Permit No. 72-003. The permit number in the permit database has been updated to refelect No. 72-003A2 for this action.
Ray Bruun, 5/25/17.

Dear : Jeff Maupin

ISSUANCE OF PERMIT AMENDMENT 72-003A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NORTH YUBA WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

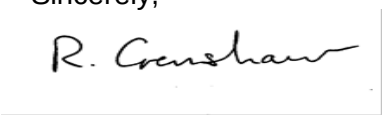

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 72-003A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NORTH YUBA WATER DISTRICT
(Public Water System No. *5810006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***72-003A3***
EFFECTIVE DATE**: January 17, 2017**

The number 72-003A3 is incorrect. This is the 2nd amendment to Permit No. 72-003. The permit number in the permit database has been updated to refelect No. 72-003A2 for this action.
Ray Bruun, 5/25/17.

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NPS-GRANT GROVE
Public Water System No. *1010501*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_111**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

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k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Edward Piester
Operations Manager
Nuevo Water Company, System No. 3310026
30427 11th St.
Nuevo, CA 92567

Dear Edward Piester:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nuevo Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nuevo Water Company
(Public Water System No. 3310026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

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private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

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a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DINA ONTIVERAS
PRESIDENT
NYELAND ACRES MUTUAL WATER CO, System No. 5602111
P.O. Box 1228
OXNARD, CA 93032

Dear: DINA ONTIVERAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NYELAND ACRES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NYELAND ACRES MUTUAL WATER CO
(Public Water System No. *5602111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

537. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

538. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

539. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

540. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

541. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

542. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

543. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

544. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

604. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

605. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

606. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

607. The water system may stop lead sampling at a school if:

iiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllllll. If requested in writing by the school's authorized school representative.

608. The water system is responsible for the following costs:

eeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

609. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

610. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

611. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyyyyyyy. The date of the request;

zzzzzzzzzzzzz. The date of the initial meeting;

aaaaaaaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbbbbbbb. The date of initial lead sampling and all repeat samples.

612. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD JONES
WATER & WW SUPT
OAK PARK WATER SERVICE, System No. 5610043
1001 Partridge Drive Suite 150
VENTURA, CA 93003

Dear: RICHARD JONES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OAK PARK WATER SERVICE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

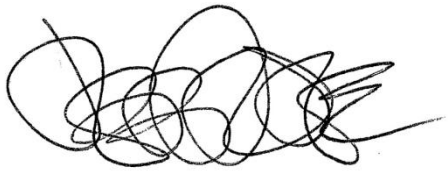

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OAK PARK WATER SERVICE
(Public Water System No. *5610043*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

785. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

786. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

787. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

788. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

789. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

790. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

791. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

792. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

883. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

884. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

885. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

886. The water system may stop lead sampling at a school if:

cccccccccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffffffffff. If requested in writing by the school's authorized school representative.

887. The water system is responsible for the following costs:

oooooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

888. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

889. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

890. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwwwwwwwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxxxxxxxxxxxx. The date of the request;

yyyyyyyyyyyyyyyyyyy. The date of the initial meeting;

zzzzzzzzzzzzzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaaaaaaaaaaaa. The date of initial lead sampling and all repeat samples.

891. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

PAAVO OGREN
GENERAL MANAGER
OCEANO COMM SERVICES DIST., System No. 4010005
1655 Front Street
OCEANO, CA 93445

Dear: PAAVO OGREN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OCEANO COMM SERVICES DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OCEANO COMM SERVICES DIST.
(Public Water System No. *4010005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

57. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

58. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

59. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

60. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

61. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

62. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

63. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

64. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

64. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

65. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

66. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

67. The water system may stop lead sampling at a school if:

cc. All initial samples are less than or equal to 15 ppb; or

dd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ff. If requested in writing by the school's authorized school representative.

68. The water system is responsible for the following costs:

o. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

p. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

69. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

70. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

71. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    jj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    kk. The date of the request;

    ll. The date of the initial meeting;

    mm. The date of the sampling plan along with a copy of each sampling plan; and

    nn. The date of initial lead sampling and all repeat samples.

72. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Ana Pedreiro
O'Connor Tract Co-Operative Water Company, System No. 4110019
P.O. Box 1375
Palo Alto, CA 94302

Dear Ms. Pedreiro:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the O'Connor Tract Co-Operative Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

O'Connor Tract Co-Operative Water Company
(Public Water System No. *4110019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Douglas Nunneley, General Manager
Oildale Mutual Water Company, System No. 1510015
P.O. Box 5638
Oildale, CA 93388

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Douglas Nunneley:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Oildale Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Oildale Mutual Water Company
(Public Water System No. *1510015*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Tim Shaw
General Manager
OLIVEHURST PUBLIC U.D., System No. 5810003
P.O. BOX 670
OLIVEHURST, CA 95961

Dear : Mr. Tim Shaw

ISSUANCE OF PERMIT AMENDMENT 03251963A10

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OLIVEHURST PUBLIC U.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

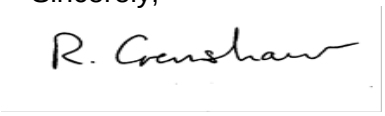

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 03251963A10

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OLIVEHURST PUBLIC U.D.
(Public Water System No. *5810003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***03251963A10***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Kim Thorner
General Manager
Olivenhain Municipal Water District, System No. 3710029
1966 Olivenhain Rd.
Encinitas, CA 92024

Dear Kim Thorner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Olivenhain Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterohi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Olivenhain Municipal Water District
(Public Water System No. *3710029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Burton, Utility General Manager
Ontario Municipal Utilities Company
System No. 3610034
1425 S. Bon View Ave.
Ontario, CA 91761

Dear: Scott Burton,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ontario Municipal Utilities Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ontario Municipal Utilities Company
(Public Water System No. *3610034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410016

Sharon Wilcox
General Manager
Orange Vale Water Company, System No. 3410016
P.O. Box 620800
Sacramento, CA 95662

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410016

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orange Vale Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410016

cc: Sacramento County Environmental Management Department. (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orange Vale Water Company
Public Water System
(Public Water System No. 3410016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410016**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ed Castaneda
General Manager
Orchard Dale Water District
13819 East Telegraph Road
Whittier, CA 90604

Dear Ed Castaneda:

System No: 1910101 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orchard Dale Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910101 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910101 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Orchard Dale Water District

Los Angeles County
System No. 1910101

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orchard Dale Water District
Public Water System No. *1910101*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Raul Mariscal
Foreman
Orosi Public Utility District, System No. 5410008
12488 Avenue 416
Orosi, CA 93647

Dear: Raul Mariscal

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orosi Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orosi Public Utility District
(Public Water System No. 5410008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mark Watton
General Manager
Otay Water District, System No. 3710034
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978

Dear Mark Watton:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Otay Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Otay Water District
(Public Water System No. *3710034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DANIEL RYDBERG
INT PW DIRECTOR UTILITIES
OXNARD WATER DEPT, System No. 5610007
251 South Hayes Avenue
OXNARD, CA 93030

Dear: DANIEL RYDBERG

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

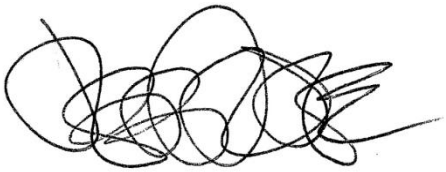

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OXNARD WATER DEPT
(Public Water System No. *5610007*)

By The

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Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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627. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

628. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

629. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

630. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

631. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

632. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

703. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

704. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

705. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

706. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

dddddddddddd. If requested in writing by the school's authorized school representative.

707. The water system is responsible for the following costs:

aaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

708. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

709. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

710. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbbbbbbb. The date of the request;

ccccccccccccccccc. The date of the initial meeting;

ddddddddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeeeeeeeee. The date of initial lead sampling and all repeat samples.

711. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810012

Dale Withers, Facilities Director
Pacific Union College
205 Highlands Oaks Drive
Angwin, CA 94508-9802

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Dale Withers:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Pacific Union College (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810012

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pacific Union College
(Public Water System No. 2810012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Alan Carlisle
General Manager
Padre Dam Municipal Water District, System No. 3710037
PO BOX 719003
Santee, CA 92071

Dear Alan Carlisle:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Padre Dam Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Padre Dam Municipal Water District
(Public Water System No. *3710037*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. James Konopisos
Board Member
Page Avenue Mutual Water Company, System No. 3000585
1900 Page Avenue
Fullerton, CA 92833

Dear Mr. Konopisos:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Page Avenue Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Page Avenue Mutual Water Company
(Public Water System No. 3000585)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Pajaro Community Services District, System No. 2710020
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pajaro Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAJARO COMMUNITY SERVICES DISTRICT
(Public Water System No. *2710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Peter Tuculet
Chief Operator
Palm Ranch Irrigation Dist.
4871 West Columbia Way
Quartz Hill, CA 93536

Dear: Peter Tuculet

System No: 1910103 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palm Ranch Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910103 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910103 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palm Ranch Irrigation Dist.
Public Water System No. *1910103*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dennis Lamoreaux
General Manager
Palmdale Water Dist.
2029 East Avenue Q
Palmdale, CA 93550

Dear Dennis Lamoreaux:

System No: 1910102 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palmdale Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910102 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910102 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Palmdale Water Dist.

Los Angeles County
System No. 1910102

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palmdale Water Dist.
Public Water System No. *1910102*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Katherine Loudd
Palo Alto Park Mutual Water Company, System No. 4110020
2190 Addison Avenue
Palo Alto, CA 94303

Dear Ms. Loudd:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palo Alto Park Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palo Alto Park Mutual Water Company
(Public Water System No. *4110020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PANOCHE WATER DISTRICT
Public Water System No. *1000345*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_046**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAPPAS & CO (COALINGA)
Public Water System No. *1009006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_068**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAPPAS & CO (MENDOTA)
Public Water System No. *1009039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_073**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Jim Passanisi
Water Treatment Plant Supervisor
PARADISE IRRIGATION DISTRICT, System No. 410007
13888 PINE NEEDLE DRIVE
MAGALIA, CA 95954

Dear : Jim Passanisi

ISSUANCE OF PERMIT AMENDMENT 01-02-99(P)040002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PARADISE IRRIGATION DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

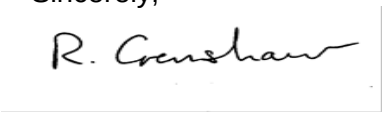

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-99(P)040002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PARADISE IRRIGATION DISTRICT
(Public Water System No. *410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-99(P)040002***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

ANDY LILLEY
VICE PRESIDENT
PASO ROBLES BEACH WATER ASSN, System No. 4010006
PO Box 315
CAYUCOS, CA 93430

Dear: ANDY LILLEY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PASO ROBLES BEACH WATER ASSN water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

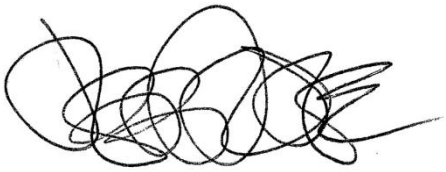

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PASO ROBLES BEACH WATER ASSN
(Public Water System No. *4010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

65. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

66. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

67. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

68. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

69. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

70. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

71. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

72. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

73. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

74. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

75. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

76. The water system may stop lead sampling at a school if:

gg. All initial samples are less than or equal to 15 ppb; or

hh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jj. If requested in writing by the school's authorized school representative.

77. The water system is responsible for the following costs:

q. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

r. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

78. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

79. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

80. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    oo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    pp. The date of the request;

    qq. The date of the initial meeting;

    rr. The date of the sampling plan along with a copy of each sampling plan; and

    ss. The date of initial lead sampling and all repeat samples.

81. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHRISTOPHER ALAKEL
WATER RESOURCE MANAGER
PASO ROBLES WATER DEPARTMENT, System No. 4010007
1230 PASO ROBLES STREET
PASO ROBLES, CA 93446

Dear: CHRISTOPHER ALAKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PASO ROBLES WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

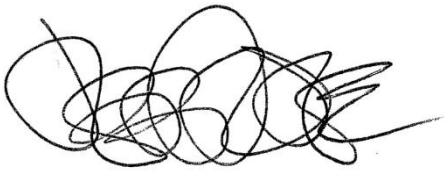

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PASO ROBLES WATER DEPARTMENT
(Public Water System No. *4010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

73. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

74. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

75. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

76. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

77. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

78. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

79. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

80. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

82. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

83. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

84. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

85. The water system may stop lead sampling at a school if:

kk. All initial samples are less than or equal to 15 ppb; or

ll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nn. If requested in writing by the school's authorized school representative.

86. The water system is responsible for the following costs:

s. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

t. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

87. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

88. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

89. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    tt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    uu. The date of the request;

    vv. The date of the initial meeting;

    ww. The date of the sampling plan along with a copy of each sampling plan; and

    xx. The date of initial lead sampling and all repeat samples.

90. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Linda Lee
Patterson Tract CSD, System No. 5402038
P.O. Box 532
Visalia, CA 93279

Dear: Linda Lee

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Patterson Tract CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Patterson Tract CSD
(Public Water System No. 5402038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910003

Karen Ball, General Manager
Penngrove Water Company (PUC)
4982 Sonoma Highway
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karen Ball:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Penngrove Water Company (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910003

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Penngrove Water Company (PUC)
(Public Water System No. 4910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PG&E HELMS SUPPORT FACILITY
Public Water System No. *1000472*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_058**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Bartz, General Manager
Phelan Pinon Hills CSD
System No. 3610120
P.O. Box 294049
Phelan, CA 92329

Dear: Don Bartz,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Phelan Pinon Hills CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Phelan Pinon Hills CSD
(Public Water System No. *3610120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Grajeda
General Manager
Pico WD
P.O. Box 758
Pico Rivera, CA 90660

Dear Mark Grajeda:

System No: 1910125 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pico WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910125 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910125 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pico WD

Los Angeles County
System No. 1910125

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pico WD
Public Water System No. *1910125*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PIEDRA PARK ASSOCIATION
Public Water System No. *1000405*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_052**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Michelle Ray
Owner
Pierpoint Springs Water Co., System No. 5400732
P.O. Box 85
Camp Nelson, CA 93208

Dear: Michelle Ray

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pierpoint Springs Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pierpoint Springs Water Co.
(Public Water System No. 5400732)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Russell Howard
Lead Operator
Pine Grove CSD, System No. 0310005
P.O. Box 367
Pine Grove, CA 95665

Dear : Mr. Howard

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Grove CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Grove CSD
(Public Water System No. 0310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Neil Symonds
Board President
Pine Hills Mutual Water Company, System No. 3700905
P.O. Box 725
Julian, CA 92036

Dear Neil Symonds:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Hills Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Hills Mutual Water Company
(Public Water System No. *3700905*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Trevor Brown
Manager
Pine Valley Mutual Water Company, System No. 3710039
28789 Old HWY 80
Pine Valley, CA 91962

Dear Trevor Brown:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Valley Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Valley Mutual Water Company
(Public Water System No. *3710039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason Franklin, General Manager
Pinedale County Water District, System No. 1010026
480 W. Birch Ave.
Pinedale, CA 93650

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jason Franklin:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pinedale County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pinedale County Water District
(Public Water System No. *1010026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

TOM HEMBREE
WATER SYSTEM SUPERVISOR
PISMO BEACH WATER DEPARTMENT, System No. 4010008
760 MATTIE ROAD
PISMO BEACH, CA 93449

Dear: TOM HEMBREE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PISMO BEACH WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PISMO BEACH WATER DEPARTMENT
(Public Water System No. *4010008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

81. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

82. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

83. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

84. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

85. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

86. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

87. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

88. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

91. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

92. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

93. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

94. The water system may stop lead sampling at a school if:

oo. All initial samples are less than or equal to 15 ppb; or

pp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rr. If requested in writing by the school's authorized school representative.

95. The water system is responsible for the following costs:

u. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

v. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

96. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

97. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

98. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    yy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    zz. The date of the request;

    aaa. The date of the initial meeting;

    bbb. The date of the sampling plan along with a copy of each sampling plan; and

    ccc. The date of initial lead sampling and all repeat samples.

99. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Pixley Public Utility District, System No. 5410009
P. O. Box 535
Pixley, CA 93256

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pixley Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CSA - Sheridan
(Public Water System No. 3110048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA - Alta
(Public Water System No. 3110024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA – Auburn/Bowman
(Public Water System No. 3110005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA – Colfax
(Public Water System No. 3110006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA - Foothill
(Public Water System No. 3110025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2410007
January 17, 2017

DANIEL CHAVEZ, PRESIDENT
PLANADA CSD
P.O. BOX 905
PLANADA, CA 95365

Dear DANIEL CHAVEZ,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLANADA CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLANADA CSD
(Public Water System No.: *2410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

153. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

154. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

155. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

156. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

157. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

158. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

159. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

160. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

172. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

173. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

174. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

175. The water system may stop lead sampling at a school if:

yyy. All initial samples are less than or equal to 15 ppb; or

zzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbb. If requested in writing by the school's authorized school representative.

176. The water system is responsible for the following costs:

mm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

177. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

178. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

179. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssss. The date of the request;

tttt. The date of the initial meeting;

uuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvv. The date of initial lead sampling and all repeat samples.

180. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

305. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
306. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
307. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
308. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
309. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
310. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
311. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

312. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
313. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
314. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
315. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
316. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
317. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
318. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
319. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
320. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

134. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
135. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
136. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

137. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
138. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
139. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
140. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

96. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
97. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
98. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
99. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
100. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
62. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
63. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

64. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

134. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
135. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
136. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
137. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
138. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
139. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
140. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JERRY DORAN
WATER SUPERINTENDENT
PLEASANT VALLEY MUTUAL WATER CO, System No. 5610008
1863 EAST LAS POSAS ROAD
CAMARILLO, CA 93010

Dear: JERRY DORAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLEASANT VALLEY MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLEASANT VALLEY MUTUAL WATER CO
(Public Water System No. *5610008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

633. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

634. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

635. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

636. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

637. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

638. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

639. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

640. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

712. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

713. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

714. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

715. The water system may stop lead sampling at a school if:

eeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

716. The water system is responsible for the following costs:

cccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

717. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

718. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

719. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

fffffffffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggggggggggggg. The date of the request;

hhhhhhhhhhhhhhhh. The date of the initial meeting;

iiiiiiiiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjjjjjjjj. The date of initial lead sampling and all repeat samples.

720. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Tim Shaw
General Manager
PLUMAS LAKE, System No. 5805001
P.O. BOX 670
OLIVEHURST, CA 95961

Dear : Mr. Tim Shaw

ISSUANCE OF PERMIT AMENDMENT 012104P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLUMAS LAKE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

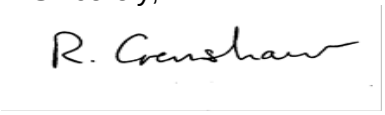

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012104P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLUMAS LAKE
(Public Water System No. *5805001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012104P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310013

Carla Sigman, Manager
Point Arena Water Works
P.O. Box 205
Point Arena, CA 95468

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Carla Sigman:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Point Arena Water Works (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310013

cc: William Hay Jr., Owner, P.O. Box 205, Point Arena, CA 95468
Mendocino County Environmental Health Department (email)

2310013/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Point Arena Water Works
(Public Water System No. 2310013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jennifer Robertson
Office Manager
Ponderosa CSD, System No. 5400934
56287 Aspen
Springville, CA 93265

Dear: Jennifer Robertson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ponderosa CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ponderosa CSD
(Public Water System No. 5400934)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Mitchell, Manager
Poplar Community Services District, System No. 5410026
P.O. Box 3849
Porterville, CA 93258

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Mitchell:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Poplar Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Poplar Community Services District
(Public Water System No. *5410026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE HICKOX
WATER SUPERINTENDENT
PORT HUENEME WATER AGENCY, System No. 5610080
250 NORTH VENTURA ROAD
PORT HUENEME, CA 93041

Dear: STEVE HICKOX

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PORT HUENEME WATER AGENCY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PORT HUENEME WATER AGENCY
(Public Water System No. *5610080*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

857. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

858. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

859. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

860. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

861. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

862. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

863. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

864. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

964. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

965. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

966. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

967. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppppppppppppppp. If requested in writing by the school's authorized school representative.

968. The water system is responsible for the following costs:

ggggggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhhhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

969. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

970. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

971. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppppppppppppppppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqqqqqqqqqqqqqqqqq. The date of the request;

rrrrrrrrrrrrrrrrrrrr. The date of the initial meeting;

sssssssssssssssssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttttttttttttttttttt. The date of initial lead sampling and all repeat samples.

972. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE HICKOX
WATER SUPERINTENDENT
PORT HUENEME WATER DEPT, System No. 5610009
250 NORTH VENTURA ROAD
PORT HUENEME, CA 93041

Dear: STEVE HICKOX

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PORT HUENEME WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PORT HUENEME WATER DEPT
(Public Water System No. *5610009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

641. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

642. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

643. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

644. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

645. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

646. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

647. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

648. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

721. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

722. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

723. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

724. The water system may stop lead sampling at a school if:

iiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllllllll. If requested in writing by the school's authorized school representative.

725. The water system is responsible for the following costs:

eeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

726. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

727. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

728. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllllllllllllll. The date of the request;

mmmmmmmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooooooo. The date of initial lead sampling and all repeat samples.

729. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeff Walley
Chief Eng. II
Porterville Developmental Center, System No. 5410801
P.O. Box 2000
Porterville, CA 93257

Dear: Jeff Walley

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville Developmental Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville Developmental Center
(Public Water System No. 5410801)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bryan Styles
Field Services Mgr.
Porterville-Jones Corner, System No. 5410048
291 North Main Street
Porterville, CA 93257

Dear: Bryan Styles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville-Jones Corner water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville-Jones Corner
(Public Water System No. 5410048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Terry Zaragoza
Interim Utility Manager
City of Poway, System No. 3710015
P.O. BOX 789
Poway, CA 92074-0789

Dear Terry Zaragoza:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Poway water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Poway
(Public Water System No. *3710015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810700

Dan Patrick
Treatment Supervisor
Presidio of San Francisco
Po Box 29052
San Francisco, CA 94129-0052

Dear Dan Patrick:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Presidio of San Francisco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Presidio of San Francisco
(Public Water System No. *CA3810700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Patrick Walter
Purissima Hills Water District, System No. 4310021
26375 Fremont Road
Los Altos Hills, CA 94022

Dear Mr. Walter:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Purissima Hills Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Purissima Hills Water District
(Public Water System No. *4310021*)

By The

State Water Resources Control Board

Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Chad Reed
General Manager
Quartz Hill Water Dist.
5034 W. Avenue L
Quartz Hill, CA 93536

Dear: Chad Reed

System No: 1910130 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Quartz Hill Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910130 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910130 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Quartz Hill Water Dist.
Public Water System No. *1910130*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Quincy Community S.D.
(Public Water System No. 3210004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Tom Kennedy
General Manager
Rainbow Municipal Water District, System No. 3710016
3707 Old Highway 395
Fallbrook, CA 92028

Dear Tom Kennedy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rainbow Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rainbow Municipal Water District
(Public Water System No. *3710016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Joe Lomeli
Operations Manager
Ramona Municipal Water District, System No. 3710019
105 Earlham Street
Ramona, CA 92065

Dear Joe Lomeli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ramona Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

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(Public Water System No. *3710019*)

By The

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rich Ottolini
Interim Director of Operations
Rancho California Water District, System No. 3310038
P.O. Box 9017
42135 Winchester Rd.
Temecula, CA 92589

Dear Rich Ottolini:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho California Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho California Water District
(Public Water System No. 3310038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Daniel R. Ferons
General Manager
Rancho Mission Viejo, System No. 3000852
P.O. Box 7005
Mission Viejo, CA 92690

Dear Mr. Ferons:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho Mission Viejo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho Mission Viejo
(Public Water System No. 3000852)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Melinda Houser
Administrator
Rancho Pauma Mutual Water Company, System No. 3710012
33129 Cole Grade Road
Pauma Valley, CA 92061

Dear Melinda Houser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho Pauma Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho Pauma Mutual Water Company
(Public Water System No. *3710012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Patrick Mulcahy, President
Rancho San Joaquin Mutual Water Company, System No. 3500581
PO Box 1654
Hollister, CA. 95024

Dear Mr. Mulcahy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho San Joaquin Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RANCHO SAN JOAQUIN
MUTUAL WATER COMPANY
(Public Water System No. *3500581*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JAMINETTE PEREZ
PROPERTY MANAGER
RANCHO SESPE WORKERS IMP ASSOC, System No. 5601144
2950 East Telegraph Road
FILLMORE, CA 93015

Dear: JAMINETTE PEREZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RANCHO SESPE WORKERS IMP ASSOC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RANCHO SESPE WORKERS IMP ASSOC
(Public Water System No. *5601144*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

481. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

482. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

483. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

484. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

485. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

486. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

487. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

488. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

541. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

542. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

543. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

544. The water system may stop lead sampling at a school if:

gggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjj. If requested in writing by the school's authorized school representative.

545. The water system is responsible for the following costs:

qqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

546. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

547. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

548. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

oooooooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

pppppppppppp. The date of the request;

qqqqqqqqqqqq. The date of the initial meeting;

rrrrrrrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

ssssssssssss. The date of initial lead sampling and all repeat samples.

549. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mike Powell, General Manager
Rand Communities Water District
P.O. Box 198
Randsburg, CA 93554

Dear Mr. Powell:

ISSUANCE OF PERMIT AMENDMENT: 1510016-2017PA_SCHOOLS (System No. 1510016)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rand Communities Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510016-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rand Communities Water District
(Public Water System No. 1510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510016-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900599

John Osterloh, President
Randal's Ranchette Mutual Water Company
4524 Ranchette Road
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900599

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Osterloh:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Randal's Ranchette Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900599

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Randal's Ranchette Mutual Water Company
(Public Water System No. 4900599)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900599/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RAU DAIRY
Public Water System No. *1009120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_077**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bill Gane, Operations Manager
Redlands City Mud-Water Division
System No. 3610037
P.O. Box 3005
Redlands, CA 92373

Dear: Bill Gane,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Redlands City Mud-Water Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Redlands City Mud-Water Division
(Public Water System No. *3610037*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310008

William Koehler, General Manager
Redwood Valley County Water District
P.O. Box 399
Redwood Valley, CA 95470

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310008

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear William Koehler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Redwood Valley County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310008

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Redwood Valley County Water District
(Public Water System No. 2310008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310008/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Richgrove Community Services District, System No. 5410024
P. O. Box 86
Richgrove, CA 93261

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Richgrove Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Richgrove Community Services District
(Public Water System No. *5410024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2300708

Joseph R. Swearengin
Ridgewood Water System
16580 N HWY 101
Willits, CA 95490

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300708

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joseph R. Swearengin:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Ridgewood Water System (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300708

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ridgewood Water System
(Public Water System No. 2300708)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300708/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Thomas Gregory
General Manager
Rincon Del Diablo Municipal Water District ID-1, System No. 3710018
1920 N. Iris Lane
Escondido, CA 92026

Dear Thomas Gregory:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rincon Del Diablo Municipal Water District ID-1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rincon Del Diablo Municipal Water District ID-1
(Public Water System No. *3710018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Thomas Gregory
General Manager
Rincon Del Diablo Municipal Water District ID-A, System No. 3710044
1920 N. Iris Lane
Escondido, CA 92026

Dear Thomas Gregory:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rincon Del Diablo Municipal Water District ID-A water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rincon Del Diablo Municipal Water District ID-A
(Public Water System No. *3710044*)

By The

State Water Resources Control Board

Division of Drinking Water

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8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Martha Slack
General Manager
RIO ALTO WATER DISTRICT, System No. 5210005
22099 River View Drive
COTTONWOOD, CA 96022

Dear : Martha Slack

ISSUANCE OF PERMIT AMENDMENT 82-046A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO ALTO WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

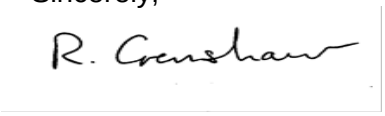

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 82-046A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIO ALTO WATER DISTRICT
(Public Water System No. *5210005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***82-046A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410018

Mary Henrici
General Manager
Rio Linda Elverta Community Water District, System No. 3410018
730 L Street
Rio Linda, CA 95673

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410018

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rio Linda Elverta Community Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410018

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rio Linda Elverta Community Water District
Public Water System
(Public Water System No. 3410018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410018**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4900577

Doug Schimdt, Principal
Rio Lindo Adventist Academy
3200 Rio Lindo Avenue
Healdsburg, CA 95448

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900577

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Doug Schimdt:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Rio Lindo Adventist Academy (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900577

cc: Sonoma County Environmental Health Department (email)

4900577/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rio Lindo Adventist Academy
(Public Water System No. 4900577)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900577/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
RIO MANOR MUTUAL WATER CO, System No. 5610035
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO MANOR MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIO MANOR MUTUAL WATER CO
(Public Water System No. *5610035*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

761. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

762. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

763. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

764. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

765. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

766. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

767. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

768. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

856. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

857. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

858. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

859. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttttt. If requested in writing by the school's authorized school representative.

860. The water system is responsible for the following costs:

iiiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

861. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

862. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

863. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhhhhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiiiiiiiiiiii. The date of the request;

jjjjjjjjjjjjjjjj. The date of the initial meeting;

kkkkkkkkkkkkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

llllllllllllllllll. The date of initial lead sampling and all repeat samples.

864. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN NICKEL
PRESIDENT
RIO PLAZA WATER CO INC, System No. 5610010
8698 Roseland Avenue
MOORPARK, CA 93021

Dear: JOHN NICKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO PLAZA WATER CO INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

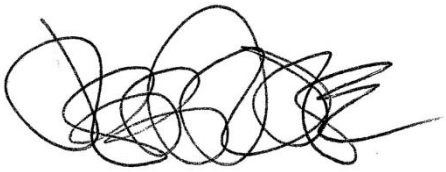

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

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cc: Local County Environmental Health Department (email)

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Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

656. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

730. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

731. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

732. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

733. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppppp. If requested in writing by the school's authorized school representative.

734. The water system is responsible for the following costs:

ggggggg

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kelly Price
President
River Retreat Mutual, System No. 5400556
P.O. Box 787
Three Rivers, CA 93271

Dear: Kelly Price

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the River Retreat Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

River Retreat Mutual
(Public Water System No. 5400556)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIVERBEND MOBILE HOME & RV PARK
Public Water System No. *1000426*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_054**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIVERDALE PUBLIC UTILITY DISTRICT
Public Water System No. *1010028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_098**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Hough, General Manager
Riverside Highland Water Company
System No. 3610057
12374 Michigan Street
Grand Terrace, CA 92323

Dear: Don Hough,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Riverside Highland Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Riverside Highland Water Company
(Public Water System No. *3610057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Diane Rodriguez-Cole
Rodriguez Labor Camp, System No. 5400735
P.O. Box 1270
Delano, CA 93216

Dear: Diane Rodriguez-Cole

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rodriguez Labor Camp water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rodriguez Labor Camp
(Public Water System No. 5400735)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arnie Peterson, Manager
Rolling Green Utilities, Inc.
System No. 1400010
139 Elmcrest Dr.
Big Pine, CA 93513

Dear: Arnie Peterson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rolling Green Utilities, Inc.. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rolling Green Utilities, Inc.
(Public Water System No. *1400010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ron Smith, General Manager
Rosamond Community Services District
3179 35th Street West
Rosamond, CA 93560

Dear Mr. Smith:

ISSUANCE OF PERMIT AMENDMENT: 1510018-2017PA_SCHOOLS (System No. 1510018)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rosamond Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510018-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Juan DelaRosa, Rosamond CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rosamond Community Services District
(Public Water System No. 1510018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510018-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tom Coleman
General Manager
Rowland Water District
3021 South Fullerton Road
Rowland Heights, CA 91748

Dear Tom Coleman:

System No. 1910194- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rowland Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rowland Water District
Public Water System No. *1910194*

By The

State Water Resources Control Board

Division of Drinking Water

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

David Lopez
General Manager
Rubidoux Community Services District, System No. 3310044
P.O. Box 3098
Rubidoux, CA 92519-3098

Dear David Lopez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rubidoux Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rubidoux Community Services District
(Public Water System No. 3310044)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Armando De La Paz
Operations Manager
Rubio Canon Land & Water Association
583 E. Sacramento St.
Altadena, CA 91001

Dear: Armando De La Paz

System No: 1910140 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rubio Canon Land & Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910140 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910140 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rubio Canon Land & Water Association
Public Water System No. *1910140*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RUBYS VALLEY CARE HOME
Public Water System No. *1000200*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_029**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ryan Gross, General Manager
Running Springs Water District
System No. 3610062
P.O. Box 2206
Running Springs, CA 92382

Dear: Ryan Gross,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Running Springs Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Running Springs Water District
(Public Water System No. *3610062*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810013

Gordon Stankowski
General Manager
Rural North Vacaville Water District
P.O. Box 5097
Vacaville, CA 95696

Dear Gordon Stankowski:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rural North Vacaville Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rural North Vacaville Water District
(Public Water System No. *CA4810013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410002

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Arden Park Vista, System No. 3410002
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Arden Park Vista public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410002

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Arden Park Vista
Public Water System
(Public Water System No. 3410002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410002**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410029

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Laguna / Vineyard, System No. 3410029
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410029

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Laguna / Vineyard public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410029

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Laguna / Vineyard
Public Water System
(Public Water System No. 3410029)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410029**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410704

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Mather / Sunrise, System No. 3410704
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410704

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Mather / Sunrise public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410704

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Mather / Sunrise
Public Water System
(Public Water System No. 3410704)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410704**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410001

Dan York
Field Operations Manager
Sacramento Suburban Water District, Public Water System No. 3410001
3701 Marconi Avenue, Suite 101
Sacramento, CA 95821

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento Suburban Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410001

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento Suburban Water District
Public Water System
(Public Water System No. 3410001)
By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sam Ochoa, CP Manager II
Salinas Valley State Prison, System No. 2710851
PO Box 1020
Soledad, CA. 93960

Dear Mr. Ochoa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Salinas Valley State Prison water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SALINAS VALLEY STATE PRISON
(Public Water System No. *2710851*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN ANDREAS FARMS
Public Water System No. *1009258*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_084**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Sked, President
San Antonio Canyon MSC
System No. 3610082
P.O. Box 631
Mt. Baldy, CA 91759

Dear: Karen Sked,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Antonio Canyon MSC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Antonio Canyon MSC
(Public Water System No. *3610082*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Charles Moorrees, General Manager
San Antonio Water Company
System No. 3610085
139 North Euclid Avenue
Upland, CA 91786

Dear: Charles Moorrees,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Antonio Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Antonio Water Company
(Public Water System No. *3610085*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

COUNTY OF MONTEREY
HEALTH DEPARTMENT
Elsa Jimenez, Director of Health

Administration
Behavioral Health

Clinic Services
Emergency Medical Services
Environmental Health/Animal Services

Public Health
Public Administrator/Public Guardian

January 26, 2017

Ms. Suzzi Clark
Secretary
San Ardo Water District, System No. 270-0728
POB 238
San Ardo, CA 93940

Dear Ms. Clark:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Ardo Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov You may also contact me at (831) 755-4552 or sandovalcl@co.monterey.ca.us.

Sincerely,

Cheryl Sandoval, REHS
Supervisor-Drinking Water Protection Services
Monterey County Health Department
Environmental Health Bureau

Enclosure: 2017PA_Schools

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Ardo Water District
(Public Water System No. 270-0728)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 26, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 26, 2017

Cheryl Sandoval, REHS
Monterey County LPA
Monterey County Health Department
Environmental Health Bureau

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GARY BALL
MANAGER
SAN CAYETANO MUTUAL WATER CO, System No. 5601116
540 SESPE AVE., #4
FILLMORE, CA 93015

Dear: GARY BALL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN CAYETANO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN CAYETANO MUTUAL WATER CO
(Public Water System No. *5601116*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

417. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

418. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

419. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

420. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

421. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

422. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

423. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

424. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

469. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

470. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

471. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

472. The water system may stop lead sampling at a school if:

aaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddddd. If requested in writing by the school's authorized school representative.

473. The water system is responsible for the following costs:

aaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

474. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

475. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

476. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbb. The date of the request;

ccccccccccc. The date of the initial meeting;

ddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeee. The date of initial lead sampling and all repeat samples.

477. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Bill O'Donnell
General Manager
San Dieguito Water District, System No. 3710021
160 Calle Magdalena
Encinitas, CA 92024

Dear Bill O'Donnell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Dieguito Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Dieguito Water District
(Public Water System No. *3710021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James (Jim) Prior
General Manager
San Gabriel County WD
8366 Grand Avenue
Rosemead, CA 91770

Dear James (Jim) Prior:

System No: 1910144 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel County WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910144 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910144 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

San Gabriel County WD

Los Angeles County
System No. 1910144

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel County WD
Public Water System No. *1910144*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Diprimio
VP Engineering, Ops
San Gabriel Valley Water Co.-El Monte
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910039- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley Water Co.-El Monte water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley Water Co.-El Monte
Public Water System No. *1910039*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Diprimio
VP Engineering, Ops
San Gabriel Valley Water Co.-Montebello
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910189- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley Water Co.-Montebello water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley Water Co.-Montebello
Public Water System No. *1910189*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Josh M. Swift, General Manager
San Gabriel Valley WC - Fontana
System No. 3610041
P.O. Box 987
Fontana, CA 92334

Dear: Josh M. Swift,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley WC - Fontana water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley WC - Fontana
(Public Water System No. *3610041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Colonial Heights, System No. 3910002
P.O. Box 1810
Stockton, CA 952021

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Colonial Heignts water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Colonial Heights
(Public Water System No. 3910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Lincoln Village, System No. 3910010
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Lincoln Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Lincoln Village
(Public Water System No. 3910010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County - Thornton, System No. 3910009
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County - Thornton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County - Thornton
(Public Water System No. 3910009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Wilkinson Manor, System No. 3910024
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Wilkinson Manor water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Wilkinson Manor
(Public Water System No. 3910024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. ~~If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter~~ laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. David Krack
San Jose State University, System No. 4310028
One Washington Square Facilities Developement & Operations
San Jose, CA 95192

Dear Mr. Krack:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Jose State University water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Jose State University
(Public Water System No. *4310028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Francois Rodigari
San Jose Water Company, System No. 4310011
1221 A South Bascom Avenue
San Jose, CA 95128

Dear Mr. Rodigari:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Jose Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Jose Water Company
(Public Water System No. *4310011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Glenn R. Garrett
Chief Plant Operator
San Juan Basin Authority, System No. 3010120
32450 Paseo Adelanto
San Juan Capistrano, CA 92675

Dear Mr. Garrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Juan Basin Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Juan Basin Authority
(Public Water System No. 3010120)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410021

Shauna Lorance
General Manager
San Juan Water District, System No. 3410021
9935 Auburn-Folsom Road
Granite Bay, CA 95746

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410021

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Juan Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410021

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Juan Water District
Public Water System
(Public Water System No. 3410021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410021**
EFFECTIVE DATE**: January 17, 2017**

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
San Lorenzo Valley Water District, System No. 4410014
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Lorenzo Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN LORENZO VALLEY WATER DISTRICT
(Public Water System No. *4410014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

COUNTY OF MONTEREY
HEALTH DEPARTMENT
Elsa Jimenez, Director of Health

Administration
Behavioral Health
Clinic Services
Emergency Medical Services
Environmental Health/Animal Services
Public Health
Public Administrator/Public Guardian

January 26, 2017

Susan Madson
Secretary
San Lucas Water District, System No. 270-1676
POB 166
San Lucas, CA 93954

Dear: Ms. Madson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Lucas Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

1270 Natividad Road, Salinas, CA 93906 PHONE (831) 755-4507 FAX (831) 796-8691
http://www.mtyhd.org/

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov You may also contact me at (831) 755-4552 or sandovalcl@co.monterey.ca.us.

Sincerely,

Cheryl Sandoval, REHS
Supervisor-Drinking Water Protection Services
Monterey County Health Department
Environmental Health Bureau

Enclosure: 2017PA_Schools

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Lucas Water District
(Public Water System No. 270-1676)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 26, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 26, 2017

Cheryl Sandoval

Cheryl Sandoval, REHS
Monterey County LPA
Monterey County Health Department
Environmental Health Bureau

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CARRIE MATTINGLY
UTILITY DIRECTOR
SAN LUIS OBISPO WATER DEPARTMENT, System No. 4010009
879 MORRO STREET
SAN LUIS OBISPO, CA 93401

Dear: CARRIE MATTINGLY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN LUIS OBISPO WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

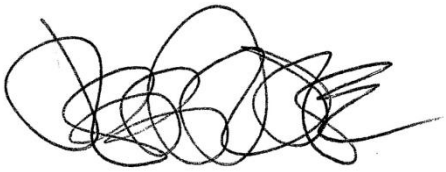

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN LUIS OBISPO WATER DEPARTMENT
(Public Water System No. *4010009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

89. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

90. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

91. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

92. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

93. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

94. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

95. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

96. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

100. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

101. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

102. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of

a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

103. The water system may stop lead sampling at a school if:

ss. All initial samples are less than or equal to 15 ppb; or

tt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vv. If requested in writing by the school's authorized school representative.

104. The water system is responsible for the following costs:

w. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

x. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

105. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

106. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

107. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eee. The date of the request;

fff. The date of the initial meeting;

ggg. The date of the sampling plan along with a copy of each sampling plan; and

hhh. The date of initial lead sampling and all repeat samples.

108. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Peter Forest
San Martin County Water District, System No. 4300542
P.O. Box 1501
Morgan Hill, CA 95038

Dear Mr. Forest:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Martin County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Martin County Water District
(Public Water System No. *4300542*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DARRELL GENTRY
GENERAL MANAGER
SAN MIGUEL COMMUNITY SERVICES DISTRICT, System No. 4010010
1150 Mission Street
SAN MIGUEL, CA 93451

Dear: DARRELL GENTRY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN MIGUEL COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN MIGUEL COMMUNITY SERVICES DISTRICT
(Public Water System No. *4010010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

97. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

98. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

99. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

100. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

101. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

102. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

103. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

104. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

109. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

110. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

111. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

112. The water system may stop lead sampling at a school if:

ww. All initial samples are less than or equal to 15 ppb; or

xx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zz. If requested in writing by the school's authorized school representative.

113. The water system is responsible for the following costs:

y. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

z. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

114. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

115. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

116. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjj. The date of the request;

kkk. The date of the initial meeting;

lll. The date of the sampling plan along with a copy of each sampling plan; and

mmm. The date of initial lead sampling and all repeat samples.

117. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAN MIGLIAZZO
UTILITY MANAGER
SAN MIGUELITO MWC, System No. 4010003
PO Box 2120
AVILA BEACH, CA 93424

Dear: DAN MIGLIAZZO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN MIGUELITO MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

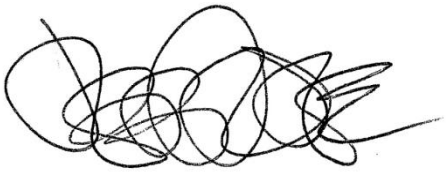

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN MIGUELITO MWC
(Public Water System No. *4010003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

41. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

42. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

43. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

44. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

45. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

46. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

47. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

48. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

46. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

47. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

48. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

49. The water system may stop lead sampling at a school if:

u. All initial samples are less than or equal to 15 ppb; or

v. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

w. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

x. If requested in writing by the school's authorized school representative.

50. The water system is responsible for the following costs:

k. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

l. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

51. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

52. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

53. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    z. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    aa. The date of the request;

    bb. The date of the initial meeting;

    cc. The date of the sampling plan along with a copy of each sampling plan; and

    dd. The date of initial lead sampling and all repeat samples.

54. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHARLES GRACE
REGIONAL GENERAL MANAGER
SAN SIMEON CSD, System No. 4000568
111 PICO AVE
SAN SIMEON, CA 93452

Dear: CHARLES GRACE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN SIMEON CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN SIMEON CSD
(Public Water System No. *4000568*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

9. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

10. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

11. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

12. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

13. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

14. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

15. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

16. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

10. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

11. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

12. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

13. The water system may stop lead sampling at a school if:

e. All initial samples are less than or equal to 15 ppb; or

f. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

iii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

iv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

g. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

h. If requested in writing by the school's authorized school representative.

14. The water system is responsible for the following costs:

c. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

d. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

15. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

16. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

17. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    f. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    g. The date of the request;

    h. The date of the initial meeting;

    i. The date of the sampling plan along with a copy of each sampling plan; and

    j. The date of initial lead sampling and all repeat samples.

18. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STUART CLYDE
GENERAL MANAGER
SAN VICENTE WATER COMPANY, System No. 4210005
340 Old Mill Road, 135A
SANTA BARBARA, CA 93110

Dear: STUART CLYDE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN VICENTE WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

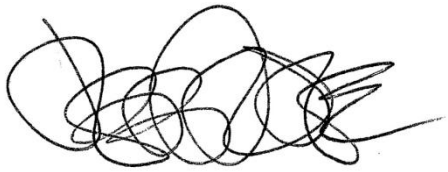

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN VICENTE WATER COMPANY
(Public Water System No. *4210005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

265. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

266. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

267. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

268. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

269. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

270. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

271. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

272. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

298. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

299. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

300. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

301. The water system may stop lead sampling at a school if:

cccccc. All initial samples are less than or equal to 15 ppb; or

dddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffffff. If requested in writing by the school's authorized school representative.

302. The water system is responsible for the following costs:

ooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

303. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

304. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

305. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkk. The date of the request;

lllllll. The date of the initial meeting;

mmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnn. The date of initial lead sampling and all repeat samples.

306. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANDY CREEK VILLAGE MHP
Public Water System No. *1000260*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_038**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

J. Arnold Rodriguez
General Manager
Santa Ana River Water Company, System No. 3310033
P.O. Box 61
10530 4th St.
Jurupa Valley, CA 91752

Dear Arnold Rodriguez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Ana River Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Ana River Water Company
(Public Water System No. 3310033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Keith Abercrombie
Retail Manager
Santa Clarita Water Division
26521 Summit Circle
Santa Clarita, CA 91350

Dear Keith Abercrombie:

System No. 1910017- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Clarita Water Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Clarita Water Division
Public Water System No. *1910017*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rosemary Menard, Water Director
Santa Cruz Water Department, System No. 4410010
212 Locust Street, Suite A
Santa Cruz, CA. 95060

Dear Ms. Menard:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Cruz Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA CRUZ WATER DEPARTMENT
(Public Water System No. *4410010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Michael Bardin
General Manager
Santa Fe Irrigation District, System No. 3710023
P.O. BOX 409
Rancho Santa Fe, CA 92067

Dear Michael Bardin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Fe Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Fe Irrigation District
(Public Water System No. *3710023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Beach
Utility Serv. Manager
Santa Fe Springs - City, Water Dept.
11710 E. Telegraph Road
Santa Fe Springs, CA 90670

Dear Frank Beach:

System No. 1910245- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Fe Springs - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Fe Springs - City, Water Dept.
Public Water System No. *1910245*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Leif Utegaard, Manager
Santa Lucia Preserve, System No. 2702521
1 Rancho San Carlos Road
Carmel, CA. 93923

Dear Mr. Utegaard:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Lucia Preserve water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA LUCIA PRESERVE
(Public Water System No. *2702521*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Daniel R. Ferons
General Manager
Santa Margarita Water District, System No. 3010101
P.O. Box 7005
Mission Viejo, CA 92690

Dear Mr. Ferons:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Margarita Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Margarita Water District
(Public Water System No. 3010101)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SWEET
UTILITIES MANAGER
SANTA MARIA WATER DEPARTMENT, System No. 4210011
2065 EAST MAIN STREET
SANTA MARIA, CA 93454

Dear: RICHARD SWEET

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA MARIA WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

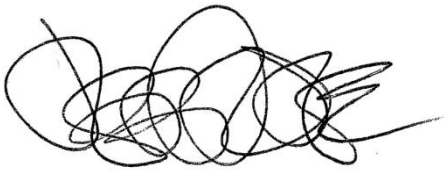

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA MARIA WATER DEPARTMENT
(Public Water System No. *4210011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

305. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

306. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

307. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

308. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

309. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

310. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

311. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

312. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

343. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

344. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

345. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

346. The water system may stop lead sampling at a school if:

wwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzz. If requested in writing by the school's authorized school representative.

347. The water system is responsible for the following costs:

yyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

348. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

349. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

350. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjj. The date of the request;

kkkkkkkk. The date of the initial meeting;

llllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmm. The date of initial lead sampling and all repeat samples.

351. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410018
January 17, 2017

AMY MONTGOMERY, GENERAL MANAGER
SANTA NELLA COUNTY WATER DISTRICT
12931 SOUTH HWY 33
SANTA NELLA, CA 95322

Dear AMY MONTGOMERY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA NELLA COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA NELLA COUNTY WATER DISTRICT
(Public Water System No.: *2410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

201. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

202. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

203. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

204. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

205. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

206. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

207. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

208. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

226. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

227. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

228. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

229. The water system may stop lead sampling at a school if:

wwww. All initial samples are less than or equal to 15 ppb; or

xxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

li. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzz. If requested in writing by the school's authorized school representative.

230. The water system is responsible for the following costs:

yy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

231. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

232. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

233. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwww. The date of the request;

xxxxx. The date of the initial meeting;

yyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzz. The date of initial lead sampling and all repeat samples.

234. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

401. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
402. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
403. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
404. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
405. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
406. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
407. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

408. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
409. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
410. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
411. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
412. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
413. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
414. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
415. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
416. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
178. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

179. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
180. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
181. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
182. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

126. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
127. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
128. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
129. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
130. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
80. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
81. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

82. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
178. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
179. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
180. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
181. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
182. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRIAN YANEZ
INTERIM PW DIRECTOR
SANTA PAULA WATER SYSTEM, System No. 5610011
P.O. Box 569
SANTA PAULA, CA 93061

Dear: BRIAN YANEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA PAULA WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

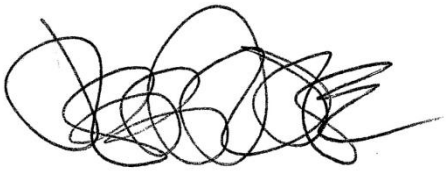

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA PAULA WATER SYSTEM
(Public Water System No. *5610011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

657. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

658. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

659. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

660. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

661. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

662. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

663. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

664. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

739. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

740. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

741. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

742. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttt. If requested in writing by the school's authorized school representative.

743. The water system is responsible for the following costs:

iiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

744. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

745. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

746. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvvvvvvv. The date of the request;

wwwwwwwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

747. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ERIC TAMBINI
WATER RESOURCES MANAGER
SANTA YNEZ RIVER WATER CONS. DIST. ID#1, System No. 4210020
P.O. BOX 157
SANTA YNEZ, CA 93460

Dear: ERIC TAMBINI

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA YNEZ RIVER WATER CONS. DIST. ID#1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA YNEZ RIVER WATER CONS. DIST. ID#1
(Public Water System No. *4210020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

353. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

354. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

355. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

356. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

357. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

358. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

359. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

360. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

397. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

398. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

399. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

400. The water system may stop lead sampling at a school if:

uuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxx. If requested in writing by the school's authorized school representative.

401. The water system is responsible for the following costs:

kkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

402. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

403. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

404. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnn. The date of the request;

oooooooo. The date of the initial meeting;

pppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqq. The date of initial lead sampling and all repeat samples.

405. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANA EPSTEIN
GENERAL MANAGER
SATICOY COUNTRY CLUB-CITY OF VENTURA, System No. 5602140
PO Box 99
VENTURA, CA 93002

Dear: SHANA EPSTEIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SATICOY COUNTRY CLUB-CITY OF VENTURA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SATICOY COUNTRY CLUB-CITY OF VENTURA
(Public Water System No. *5602140*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

577. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

578. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

579. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

580. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

581. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

582. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

583. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

584. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

649. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

650. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

651. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

652. The water system may stop lead sampling at a school if:

cccccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffffff. If requested in writing by the school's authorized school representative.

653. The water system is responsible for the following costs:

oooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

654. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

655. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

656. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxxxxxxx. The date of the request;

yyyyyyyyyyyyyy. The date of the initial meeting;

zzzzzzzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaaaaaa. The date of initial lead sampling and all repeat samples.

657. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JUAN ZAPIEN
MANAGER
SAVIERS ROAD MUTUAL WATER CO, System No. 5602115
P.O. Box 56
PORT HUENEME, CA 93044

Dear: JUAN ZAPIEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAVIERS ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAVIERS ROAD MUTUAL WATER CO
(Public Water System No. *5602115*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

545. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

546. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

547. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

548. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

549. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

550. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

551. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

552. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

613. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

614. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

615. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

616. The water system may stop lead sampling at a school if:

mmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppp. If requested in writing by the school's authorized school representative.

617. The water system is responsible for the following costs:

ggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

618. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

619. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

620. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccccccccccccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddddddddddddd. The date of the request;

eeeeeeeeeeeeee. The date of the initial meeting;

fffffffffffff. The date of the sampling plan along with a copy of each sampling plan; and

gggggggggggggg. The date of initial lead sampling and all repeat samples.

621. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBDNO County Service Area 64
System No. 3610121
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SBDNO County Service Area 64 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SBDNO County Service Area 64
(Public Water System No. *3610121*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBDNO County Service Area 70 Cedar Glen
System No. 3610026
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SBDNO County Service Area 70 Cedar Glen water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SBDNO County Service Area 70 Cedar Glen
(Public Water System No. *3610026*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBNDO County Service Area 70j
System No. 3610125
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SBNDO County Service Area 70j water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SBNDO County Service Area 70j
(Public Water System No. *3610125*)

By The

State Water Resources Control Board

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SCE/BIG CREEK POWERHOUSE #1
Public Water System No. *1009111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_076**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Piret Harmon, General Manager
Scotts Valley Water District, System No. 4410013
2 Civic Center Drive
Scotts Valley, CA. 95066

Dear Ms. Harmon:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Scotts Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SCOTTS VALLEY WATER DISTRICT
(Public Water System No. *4410013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Castaic
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910247 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Castaic water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910247 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910247 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Castaic

Los Angeles County
System No. 1910247

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Castaic
Public Water System No. *1910247*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Newhall
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910096 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Newhall water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910096 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910096 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Newhall

Los Angeles County
System No. 1910096

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

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8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Pinetree
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910250 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Pinetree water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910250 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910250 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Pinetree

Los Angeles County
System No. 1910250

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Pinetree
Public Water System No. *1910250*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Tesoro Del Valle
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910255 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Tesoro Del Valle water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910255 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910255 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Tesoro Del Valle

Los Angeles County
System No. 1910255

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Tesoro Del Valle
Public Water System No. *1910255*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Audrey Schuyler, Manager
Searles Valley Minerals Operations Inc.
System No. 3610854
P.O. Box 367
Trona, CA 93592

Dear: Audrey Schuyler,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Searles Valley Minerals Operations Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Searles Valley Minerals Operations Inc.
(Public Water System No. *3610854*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Craig Malin, City Manager
Seaside Municipal Water System, System No. 2710018
440 Harcourt Avenue
Seaside, CA. 93955

Dear Mr. Malin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seaside Municipal Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SEASIDE MUNICIPAL WATER SYSTEM
(Public Water System No. *2710018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Beatriz Scroggins
Board President
Seeley County Water District, System No. 1310013
P.O. Box 161
Seely, CA 92273

Dear Beatriz Scroggins:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seeley County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Seeley County Water District
(Public Water System No. *1310013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RUSSELL KLASSEN
OPERATOR
SENIOR CANYON MUTUAL WATER CO, System No. 5601117
603 West Ojai Avenue Suite A
OJAI, CA 93023

Dear: RUSSELL KLASSEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SENIOR CANYON MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

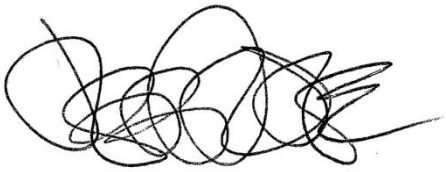

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SENIOR CANYON MUTUAL WATER CO
(Public Water System No. *5601117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

425. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

426. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

427. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

428. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

429. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

430. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

431. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

432. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

478. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

479. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

480. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

481. The water system may stop lead sampling at a school if:

eeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhh. If requested in writing by the school's authorized school representative.

482. The water system is responsible for the following costs:

ccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

483. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

484. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

485. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

fffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggggggg. The date of the request;

hhhhhhhhhh. The date of the initial meeting;

iiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjj. The date of initial lead sampling and all repeat samples.

486. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Jerry Vilander
General Manager
Serrano Water District, System No. 3010082
18021 East Lincoln Street
Villa Park, CA 92861

Dear Mr. Vilander:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Serrano Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Serrano Water District
(Public Water System No. 3010082)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Benjamin Ruiz
Interim Director
Seville Water Co., System No. 5400550
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seville Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Seville Water Co.
(Public Water System No. 5400550)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810702

Andrew DeGraca
Water Quality Division Director
SFPUC - Treasure Island
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC - Treasure Island water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - Treasure Island
(Public Water System No. *CA3810702*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Glaze
General Manager
SFWP-BANGOR, System No. 410012
2310 ORO-QUINCY HWY.
OROVILLE, CA 95966

Dear : Michael Glaze

ISSUANCE OF PERMIT AMENDMENT 01-21-17P040002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFWP-BANGOR water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

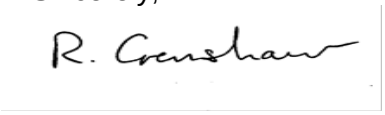

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-21-17P040002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFWP-BANGOR
(Public Water System No. *410012*)

By The

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Division of Drinking Water

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EFFECTIVE DATE**: January 17, 2017**

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Michael Glaze
General Manager
SFWP-MINERS RANCH, System No. 410006
2310 ORO-QUINCY HWY.
OROVILLE, CA 95966

Dear : Michael Glaze

ISSUANCE OF PERMIT AMENDMENT 87-012A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFWP-MINERS RANCH water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

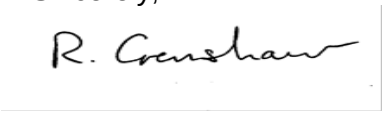

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 87-012A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFWP-MINERS RANCH
(Public Water System No. *410006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***87-012A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Mike Colletto
Shady Grove MHP, System No. 5400529
P.O. Box 1930
Ventura, CA 93001

Dear: Mike Colletto

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Shady Grove MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shady Grove MHP
(Public Water System No. 5400529)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHADY LAKES MOBILE HOME PARK
Public Water System No. *1000244*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_033**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta CSA – Castella, #3
(Public Water System No. 4500015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta CSA – French Gulch, #11
(Public Water System No. 4500317)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta C.S.D.
(Public Water System No. 4510013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE HEIGHTS MWC
Public Water System No. *1010053*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_108**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE HEIGHTS PROP ASSN
Public Water System No. *1000069*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_022**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE POINT #2
Public Water System No. *1000072*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_024**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Cummings, General Manager
Sheep Creek Water Company
System No. 3610109
P. O. Box 291820
Phelan, CA 92329

Dear: Chris Cummings,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sheep Creek Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sheep Creek Water Company
(Public Water System No. *3610109*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHERWOOD FOREST MHP
Public Water System No. *1000247*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_034**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017 PWS No. CA4810011

Cary Keaten
General Manager
SID - Elmira
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SID - Elmira water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SID - Gibson Canyon
(Public Water System No. *CA4810010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810010

Cary Keaten
General Manager
SID - Gibson Canyon
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

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AMENDMENT TO THE

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By The

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SIERRA CEDARS CSD
Public Water System No. *1010052*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_107**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT
950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Jared Feola
Maintenance Supervisor
Sierra Friends Center Water System, System No. 2900546
13075 Woolman Lane
Nevada City, CA. 95959

Dear: Mr. Feola

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-546

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Sierra Friends Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

College Park Friends Educational Association
for
Sierra Friends Center Water System
(Public Water System No.2900546)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-546** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 27th, 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Fred Finkbeiner, Manager
Sierra Highland CSD
System No. 1400007
P. O. Box 782
Bishop, CA 93515

Dear: Fred Finkbeiner,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Highland CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Highland CSD
(Public Water System No. *1400007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Betty Avalos
President
Sierra King Homeowners Assn., System No. 5400940
45257 Hammond Drive
Three Rivers, CA 93271

Dear: Betty Avalos

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra King Homeowners Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra King Homeowners Assn.
(Public Water System No. 5400940)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Glenn Stephenson
Secretary
Sierra Mutual Water Co., System No. 5403110
30840 Sunshine Drive
Porterville, CA 93257

Dear: Glenn Stephenson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Mutual Water Co.
(Public Water System No. 5403110)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sandra Blaylock
Sierra Vista Assn., System No. 5400964
Rt. 2, Box 487
Delano, CA 93215

Dear: Sandra Blaylock

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Vista Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Vista Assn.
(Public Water System No. 5400964)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierraville P.U.D.
(Public Water System No. 4600018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

ROBERT MCDONALD
FIELD SUPERVISOR
SIETE ROBLES MUTUAL WATER CO, System No. 5601119
603 WEST OJAI AVENUE SUITE A
OJAI, CA 93023

Dear: ROBERT MCDONALD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SIETE ROBLES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SIETE ROBLES MUTUAL WATER CO
(Public Water System No. *5601119*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

433. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

434. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

435. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

436. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

437. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

438. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

439. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

440. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

487. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

488. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

489. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

490. The water system may stop lead sampling at a school if:

iiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllll. If requested in writing by the school's authorized school representative.

491. The water system is responsible for the following costs:

eeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

492. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

493. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

494. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

lllllllllll. The date of the request;

mmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooo. The date of initial lead sampling and all repeat samples.

495. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROD THOMPSON
PRESIDENT
SISAR MUTUAL WATER CO, System No. 5601120
PO BOX 68
SANTA PAULA, CA 93061

Dear: ROD THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SISAR MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SISAR MUTUAL WATER CO
(Public Water System No. *5601120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

441. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

442. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

443. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

444. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

445. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

446. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

447. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

448. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

496. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

497. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

498. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

499. The water system may stop lead sampling at a school if:

mmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppp. If requested in writing by the school's authorized school representative.

500. The water system is responsible for the following costs:

ggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

501. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

502. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

503. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppppppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqqqqqqq. The date of the request;

rrrrrrrrrrr. The date of the initial meeting;

ssssssssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttttttttt. The date of initial lead sampling and all repeat samples.

504. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company
dba
Sisquoc Community Water System
(Public Water System No. 4200560)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 24, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 1/24/2017

Deanna Talerico

Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLO CSA NO. 16 - SHANDON, System No. 4010028
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLO CSA NO. 16 - SHANDON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

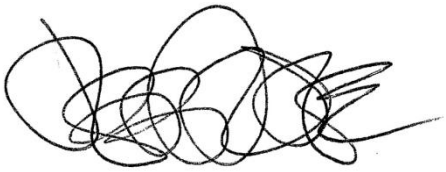

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLO CSA NO. 16 - SHANDON
(Public Water System No. *4010028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

201. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

202. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

203. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

204. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

205. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

206. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

207. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

208. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

226. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

227. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

228. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

229. The water system may stop lead sampling at a school if:

wwww. All initial samples are less than or equal to 15 ppb; or

xxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

li. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzz. If requested in writing by the school's authorized school representative.

230. The water system is responsible for the following costs:

yy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

231. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

232. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

233. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwww. The date of the request;

xxxxx. The date of the initial meeting;

yyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzz. The date of initial lead sampling and all repeat samples.

234. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLO CWWD NO. 23 - SANTA MARGARITA, System No. 4010024
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLO CWWD NO. 23 - SANTA MARGARITA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

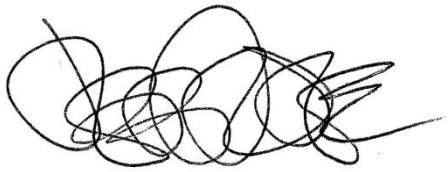

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLO CWWD NO. 23 - SANTA MARGARITA
(Public Water System No. *4010024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

177. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

178. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

179. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

180. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

181. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

182. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

183. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

184. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

199. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

200. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

201. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

202. The water system may stop lead sampling at a school if:

kkkk. All initial samples are less than or equal to 15 ppb; or

llll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnn. If requested in writing by the school's authorized school representative.

203. The water system is responsible for the following costs:

ss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

204. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

205. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

206. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhh. The date of the request;

iiiii. The date of the initial meeting;

jjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkk. The date of initial lead sampling and all repeat samples.

207. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLOCSA #10A - CAYUCOS, System No. 4010901
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLOCSA #10A - CAYUCOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

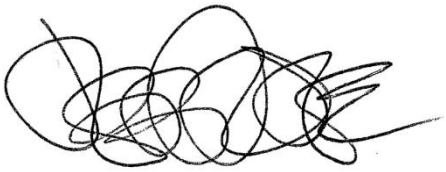

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLOCSA #10A - CAYUCOS
(Public Water System No. *4010901*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

225. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

226. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

227. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

228. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

229. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

230. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

231. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

232. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

253. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

254. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

255. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

256. The water system may stop lead sampling at a school if:

iiiii. All initial samples are less than or equal to 15 ppb; or

jjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllll. If requested in writing by the school's authorized school representative.

257. The water system is responsible for the following costs:

eee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

258. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

259. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

260. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllll. The date of the request;

mmmmmm. The date of the initial meeting;

nnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooo. The date of initial lead sampling and all repeat samples.

261. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
SLVWD - Felton Water System, System No. 4410002
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLVWD - Felton Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLVWD - FELTON WATER SYSTEM
(Public Water System No. *4410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
SLVWD-Lompico, System No. 4410015
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLVWD-Lompico water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLVWD-LOMPICO
(Public Water System No. *4410015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GREG MYERS
OPERATOR
SOLANO VERDE MUTUAL WATER CO, System No. 5602130
134 Davis Street
SANTA PAULA, CA 93060

Dear: GREG MYERS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOLANO VERDE MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

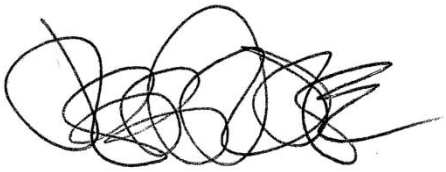

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOLANO VERDE MUTUAL WATER CO
(Public Water System No. *5602130*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

561. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

562. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

563. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

564. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

565. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

566. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

567. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

568. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

631. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

632. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

633. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

634. The water system may stop lead sampling at a school if:

uuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxx. If requested in writing by the school's authorized school representative.

635. The water system is responsible for the following costs:

kkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

636. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

637. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

638. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnnnnnn. The date of the request;

oooooooooooooo. The date of the initial meeting;

pppppppppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqqqqqq. The date of initial lead sampling and all repeat samples.

639. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KEVIN HARMER
INTERIM WATER SUPV
SOLVANG WATER DIVISION, System No. 4210013
1644 Oak Street
SOLVANG, CA 93463

Dear: KEVIN HARMER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOLVANG WATER DIVISION water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

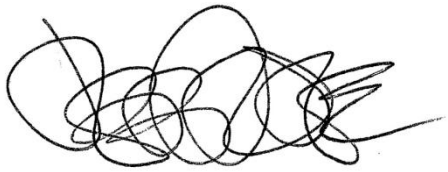

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOLVANG WATER DIVISION
(Public Water System No. *4210013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

313. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

314. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

315. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

316. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

317. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

318. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

319. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

320. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

352. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

353. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

354. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

355. The water system may stop lead sampling at a school if:

aaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddd. If requested in writing by the school's authorized school representative.

356. The water system is responsible for the following costs:

aaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

357. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

358. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

359. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooo. The date of the request;

pppppppp. The date of the initial meeting;

qqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrr. The date of initial lead sampling and all repeat samples.

360. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910027

Craig Dawson, Director/Environ Health
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910027

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Dawson:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sonoma State University (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910027

cc: Sonoma County Environmental Health Department (email)

4910027/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sonoma State University
(Public Water System No. 4910027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910027/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ron Duncan, General Manager
Soquel Creek Water District, System No. 4410017
5180 Soquel Drive
Soquel, CA. 95073

Dear Mr. Duncan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Soquel Creek Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOQUEL CREEK WATER DISTRICT
(Public Water System No. *4410017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Debra Phillips
Secretary/Treasurer
Soults Mutual Water Co., System No. 5400805
2721 Soults Drive
Tulare, CA 93274

Dear: Debra Phillips

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Soults Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Soults Mutual Water Co.
(Public Water System No. 5400805)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
South Coast Water District - Capistrano Beach, System No. 3010055
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Coast Water District - Capistrano Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Coast Water District - Capistrano Beach
(Public Water System No. 3010055)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
South Coast Water District - South Coast, System No. 3010042
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Coast Water District - South Coast water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Coast Water District - South Coast
(Public Water System No. 3010042)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Little
President
South Fork Estates Mutual Water Co., System No. 5403113
P.O. Box 597
Three Rivers, CA 93271

Dear: Michael Little

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Fork Estates Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Fork Estates Mutual Water Co.
(Public Water System No. 5403113)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Chris Castillo
Water Division Manager
South Gate-City, Water Dept.
8650 California Avenue
South Gate, CA 90280

Dear Chris Castillo:

System No. 1910152- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Gate-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Gate-City, Water Dept.
Public Water System No. *1910152*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lew Nelson
Vice President
South Kaweah Mutual Water Company, System No. 5400754
P.O. Box 191
Three Rivers, CA 93271

Dear: Lew Nelson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Kaweah Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Kaweah Mutual Water Company
(Public Water System No. 5400754)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

David Armstrong
General Manager
South Mesa Water Company, System No. 3310017
P.O. Box 458
391 West Ave. L
Calimesa, CA 92320

Dear David Armstrong:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Mesa Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Mesa Water Company
(Public Water System No. 3310017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Michael Hutton
Chief Operator
South Midway City Mutual Water Company, System No. 3000825
16162 Beach Blvd Ste #308
Huntington Beach, CA 92847

Dear Mr. Hutton:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Midway City Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Midway City Mutual Water Company
(Public Water System No. 3000825)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alberto Corrales
General Manager
South Montebello Irrigation Dist.
437 Bluff Road
Montebello, CA 90640

Dear Alberto Corrales:

System No. 1910153- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Montebello Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Montebello Irrigation Dist.
Public Water System No. *1910153*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

LYNN HICKS
OPERATOR
SOUTH MOUNTAIN MUTUAL WATER CO, System No. 5601141
P.O. Box 307
SANTA PAULA, CA 93061

Dear: LYNN HICKS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOUTH MOUNTAIN MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOUTH MOUNTAIN MUTUAL WATER CO
(Public Water System No. *5601141*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

473. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

474. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

475. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

476. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

477. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

478. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

479. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

480. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

532. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

533. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

534. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

535. The water system may stop lead sampling at a school if:

cccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffff. If requested in writing by the school's authorized school representative.

536. The water system is responsible for the following costs:

ooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

537. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

538. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

539. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkkkkkkk. The date of the request;

lllllllllll. The date of the initial meeting;

mmmmmmmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnnnnnnn. The date of initial lead sampling and all repeat samples.

540. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ,
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910002

Randy Curtis
Manager of Water Operations
South Tahoe Public Utility District, System No. 0910002
1275 Meadow Crest Drive
South Lake Tahoe, CA 96150

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Tahoe Public Utility District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910002

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Tahoe Public Utility District
Public Water System
(Public Water System No. 0910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mary Boyd
Administrative Clerk
Southern California Edison Co.-Santa Catalina
1 Pebbly Beach Road, P.O. Box 527
Avalon, CA 90704

Dear: Mary Boyd

System No: 1910006 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Southern California Edison Co.-Santa Catalina water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910006 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910006 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Southern California Edison Co.-Santa Catalina
Public Water System No. *1910006*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kerry Varney, Vice President
Tasco Spreckels Water Company, System No. 2710023
PO Box 4070
Salinas, CA. 93912

Dear Mr. Varney:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tasco Spreckels Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TASCO SPRECKELS WATER COMPANY
(Public Water System No. *2710023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Springville Public Utility District, System No. 5410011
35559 Highway 190
Springville, CA 93265

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Springville Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Springville Public Utility District
(Public Water System No. *5410011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dana Persijn, President
Springwood Estates Mutual Water Company, System No. 3500575
1201 Spring Grove Road
Hollister, CA. 95023

Dear Ms. Persijn:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Springwood Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SPRINGWOOD ESTATES
MUTUAL WATER COMPANY
(Public Water System No. *3500575*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Squaw Valley PSD
(Public Water System No. 3110020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ST NICHOLAS RANCH & RETREAT
Public Water System No. *1000377*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_050**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

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3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

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l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

October 19, 2017

System: 3500537

Mr. Edward DeGroot
Business Manager, St. Francis Retreat Center
PO Box 970
San Juan Bautista, CA 95045

WATER SYSTEM PERMIT – ST. FRANCIS RETREAT CENTER WATER SYSTEM

Dear Mr. DeGroot,

St Francis Retreat Center (St. Francis) has applied for water system permit amendments to add a 265,000-gallon storage tank in the distribution system and operate the surface water treatment plant for Well 01, consisting of a Deep Bed Manganese Greensand Multi-Media Filter for iron and manganese removal treatment followed by a Strainrite Aquarite Dual Bag Filtration System, and associated oxidation and disinfection treatment. Given the significant changes that have been made to the water system since the last permit was issued, the State Water Resource Control Board – Division of Drinking Water (Division) has chosen to process the applications for issuance of a full water system permit.

The applications have been considered by the Division and it is the finding that Sections 116270 through 116751, inclusive of the California Health and Safety Code can be met by St. Francis, providing that it adheres to the provisions set forth in Domestic Water Supply Permit No. 02-05-17P-3500537. This finding is based upon the Engineering Report dated October 2017, prepared by the Division regarding the permit. Domestic Water Supply Permit No. 02-05-17P-3500537, which includes permit provisions, is enclosed as well as a copy of the corresponding permit engineering report.

Please be advised that failure to comply with one (1) or more of the permit provisions could result in the Division taking enforcement action to compel compliance with this permit.

If you have any questions, please contact Shaminder Kler of my staff at (831) 655-6938 or me at (831) 655-6934.

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

cc: San Benito County Environmental Health

bcc: J. Sweigert, S. Kler, A. Halcon-Urueta, System File 3500537 (Correspondence), Chron

☐ Electronic files moved from system *Draft* folder to appropriate system folder

☐ Any needed updates to SDWIS forwarded to Lora

JRS/ssk

2017.10.19 Fe Mn Strainrite and 265000 gallon tank Amendment 1 Cover LetterDRAFT.doc

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To
St. Francis Retreat Center

Public Water System No. 3500537

By The

State Water Resources Control Board
Division of Drinking Water

PERMIT NUMBER: 02-05-17P-3500537 DATE: October 19, 2017

WHEREAS:

1. St. Francis Retreat Center Water System's domestic water supply permit is greater than 10 years old and no longer representative of the system. Therefore, the State Water Resources Control Board, Division of Drinking Water (Division) is issuing a revised water supply permit.

2. This public water system is known as the St. Francis Retreat Center whose headquarters is located at 549 Mission Vineyard Road, San Juan Bautista, CA 95045.

3. The legal owner of the St. Francis Retreat Center is Franciscan Friars of California, Province of Santa Barbara. The Franciscan Friars of California, Province of Santa Barbara therefore, is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.

4. The public water system for which the permit application has been submitted is as described briefly below (a more detailed description of the permitted system is described in Section ***(Number)*** of the attached Permit Report):

   - Well 01 – active well under the influence of surface water
   - Well 03 – standby groundwater source
   - Well 01 Treatment including iron and manganese removal, bag filtration surface water treatment plant, and addition of sodium hypochlorite for oxidation and disinfection

5. The service area of the St. Francis Retreat Center Water System is as shown on the service area map in Appendix E of the Permit Report.

And WHEREAS:

1. The St. Francis Retreat Center has submitted all of the required information relating to the proposed operation of the St. Francis Retreat Center Water System.

2. The Division has evaluated all of the information submitted by the St. Francis Retreat Center and has conducted a physical investigation of the proposed St. Francis Retreat Center Water System.

3. The Division has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

THEREFORE: The Division has determined the following:

1. The St. Francis Retreat Center Water System meets the criteria for and is hereby classified as a transient noncommunity water system.

2. The applicant has demonstrated that the proposed St. Francis Retreat Center Water System has sufficient source capacity to serve the anticipated water demands.

3. The design of the proposed water system complies with the Water Works Standards and all applicable regulations.

4. The applicant has demonstrated adequate technical, managerial, and financial capacity to operate reliably the proposed water system.

5. Provided the following conditions are complied with, the St. Francis Retreat Center Water System should be capable of providing water to consumers that is pure, wholesome, and potable and in compliance with statutory and regulatory drinking water requirements at all times.

ST. FRANCIS RETREAT CENTER IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT TO OPERATE THE ST. FRANCIS RETREAT CENTER WATER SYSTEM.

The St. Francis Retreat Center Water System shall comply with the following permit conditions:

General Provisions

1. *The St. Francis Retreat Center water system shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.*

2. *All water supplied by the St. Francis Retreat Center water system for domestic purposes shall meet all applicable Maximum Contaminant Levels (MCLs) established by the California Division of Drinking Water. If the water quality does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards, subject to permit approval.*

3. *The following Primary Station (PS) Codes are assigned to the approved drinking water sources and treatment systems for the purpose of electronic submittal of water monitoring data to the Division:*

Monitoring Site	PS Code
Well 01 – Surface Influenced	3500537-001
Fe Mn and Strainrite Trtmt Effluent	3500537-004
Well 03 – Standby	3500537-003
Well 03 – Cl_2 Treated	3500537-005

4. *No changes, additions, or modifications shall be made to the sources or treatments mentioned in Condition No. 3 unless an amended water permit has first been obtained from the Division.*

5. *All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765 of the CCR. The surface water treatment plant is classified as a T2 water treatment plant requiring a chief operator with a minimum of T2 certification. All shift operators must have a minimum of T1 certification. All operators with responsibilities related to operation, monitoring, or reporting of the surface water treatment facilities shall be appropriately certified.*

6. *All chemicals added to the water for treatment must be certified as meeting the specifications of ANSI/NSF Standard 60 for direct additives to drinking water.*

7. *The drinking water filtration treatment process approved in this permit amendment includes the following:*

   a. Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment.
   b. Strainrite Aqua-Rite Potable Filtration System consisting of two (2) trains of pre-filters and final filters operating in parallel.
   c. The filter vessels in each train are enclosed in the Strainrite AQ2-2 stainless steel housings.
   d. Strainrite HPM99-CC-2SR pre-filter bags are installed in the Stage 1 vessels.
   e. Strainrite HPM99-CCX-2SR final filter bags are installed in the Stage 2 vessels.

8. *The equipment listed in No. 7 above are the only filtration equipment approved for use in this treatment plant. St Francis is prohibited from modifying or repairing any of the listed equipment with parts that are not approved by the manufacturer for the specified model numbers, without written approval from the Division.*

9. *The treatment plant filtration and disinfection processes shall be operated to achieve a total combined pathogen removal and inactivation of 3-log Giardia, 4-log virus, and 2-log Cryptosporidium at all times.*

10. *St. Francis shall complete a watershed sanitary survey that demonstrates a lack of virus hazard in the watershed for the pond near Well 01, and submit to the Division by* ***December 31, 2017****.*

Yardney Deep Bed Multi-Media Filtration System Operation

11. *The Yardney Deep Bed Multi-Media Filtration System shall be operated such that the maximum head loss (pressure differential) through the filter shall not exceed 10 psi.*

12. *When the differential pressure across the multi-media filter reaches 5 psi, the media must be backwashed for at least 8 minutes at 60 gpm, followed by a filter-to-waste for 10 minutes.*

13. *The multi-media must be inspected and replaced following manufacturer's recommended procedure and frequencies, with ANSI/NSF Standard 61 Certified Multi-Media only.*

Yardney Deep Bed Multi-Media Filtration System Process Monitoring

14. *St. Francis must monitor iron and manganese in the treatment plant effluent at least once per month and the results must be electronically submitted to the Division by the **10th** day of the following month.*

Strainrite Aqua-Rite Potable Filtration System Operation

15. *The Strainrite Aqua-Rite Potable Filtration System shall be operated to meet the following turbidity performance standards:*
    a. The effluent turbidity shall be equal to or less than 0.1 NTU in 95 percent of the measurements taken each month and shall not exceed 0.5 NTU at any time.

16. *When any individual vessel bag is replaced, the plant shall filter-to-waste for a minimum of **two (2)** minutes.*

17. *The raw water flow through each filter train shall not exceed **twenty (20) gallons** per minute.*

18. *The differential pressure as measured across pre and final filter bags shall not exceed **twenty-five (25) psig** at any time.*

19. *The Strainrite Aqua-Rite Potable Filtration System shall be operated in the **"auto"** mode during normal operating conditions.*

Strainrite Aqua-Rite Potable Filtration System Process Monitoring

20. *St. Francis must monitor and record the turbidity of the combined filtration effluent at least once every **fifteen (15) minutes** when the treatment system is in operation. Monitoring shall be conducted in accordance with the approved Operations Plan.*

21. *St. Francis shall calibrate the turbidimeter(s) in accordance with the manufacturer recommendations. Calibration records must be maintained that include date, model, and location of monitoring equipment, and submitted in monthly reports to the Division.*

Sodium Hypochlorite Disinfection Treatment Process Operation

22. *The sodium hypochlorite disinfection treatment process shall be operated to achieve a minimum of 0.5-log Giardia and 4.0-log virus inactivation at all times.*

23. *A minimum free chlorine residual of 0.4 mg/L shall be maintained in the 60,000-gallon tank discharge pipe, upstream of the first service connection. The treatment plant instrumentation and control system shall be configured to activate an automatic shutdown alarm if the free chlorine residual at the first connection is not maintained at 0.4 mg/L or greater for a period not to exceed fifteen (15) continuous minutes.*

24. *The water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four (4) hours in any 24-hour period. Furthermore, a disinfectant residual shall be detectable in at least 95 percent of the samples taken*

from the distribution system and residual measurements shall be made in conjunction with monthly coliform sampling.

Sodium Hypochlorite Disinfection Treatment Process Monitoring

25. *The combined filter effluent discharged from the Clearwell upstream of the first distribution system connection shall be **continuously** monitored for chlorine residual and at least **once** daily for temperature, and pH during peak demand period of the day.*

Treatment Plant Operations Plan

26. *St. Francis must operate the treatment plant in accordance with the Division approved Operations Plan. A copy of the current operations plan must be maintained at the treatment facility and any modification to the operations plan must be approved by the Division.*

Chemical Water Quality Monitoring – Well 01

27. *St. Francis shall monitor Well 01 for iron and manganese **once every three (3) months** and the results must be electronically submitted to the Division by the tenth day of the following month.*

28. *St. Francis must conduct **annual** nitrate monitoring of Well 01 and submit the results electronically to the Division by the **10th** day of the following month.*

Bacteriological Water Quality Monitoring

29. *St. Francis must conduct **monthly** raw water total coliform and E. coli monitoring using an enumeration method at Well 01. All results must be submitted to the Division by the **10th** day of the month following sample collection.*

30. *St. Francis must conduct **monthly** monitoring of the treatment plant effluent for total coliform and E. coli using an enumeration method. All results shall be submitted to the Division by the **10th** day of the month following sample collection.*

Reporting Requirements

31. *St Francis must submit a **monthly** report on the operation of the iron and manganese removal treatment and surface water treatment facilities by the **10th** day of the following month. The report must be signed by the person responsible for the operation of the water treatment plant. The report must include, as a minimum, all of the applicable elements identified in Section 64664, Chapter 17, Title 22, CCR.*

32. *St. Francis shall maintain accurate and complete treatment plant operation records in accordance with Section 64662, Chapter 17, Title 22, CCR. The records must include as a minimum, the following information:*

    a. *The results of all required monitoring.*

    b. *Quantity of water produced, plant flow rates, filtration rates, and hours of operation.*

    c. *Dates and descriptions of all major equipment and process failures and the corrective actions implemented.*

d. *Dates of all filter maintenance and inspections performed and a description of the results.*

33. *St. Francis shall submit a report on the effectiveness of the treatment plant operation for the first year of operation. The engineering report shall include, 1) a description of the effectiveness of each treatment process operation; 2) the results of all water quality analysis conducted and an evaluation of compliance with performance standards under actual operating conditions; 3) an assessment of any problems experienced and the corrective actions taken to achieve resolution, and; 4) a plan and time schedule for implementation of any treatment plant process changes or improvements; 5) an evaluation of the head losses across the pre-filters, the final filters and the filter system as a whole, compared to when filter bags were replaced. The report shall be submitted to the Division by* ***December 31, 2017****.*

34. *St. Francis shall retain all treatment plant records for a minimum of five (5) years and shall be made available to the Division upon request.*

35. *All water quality samples must be analyzed by a state certified laboratory. All source water quality analytical results must be submitted to the Division electronically under the PS Code specified in Provisions 3 above, by the* ***10th*** *day of the month following completion of analysis.*

This permit supersedes all previous domestic water supply permits issued for this public water system and shall remain in effect unless and until it is amended, revised, reissued, or declared to be null and void by the Division. This permit is non-transferable. Should the St. Francis Retreat Center Water System undergo a change of ownership, the new owner must apply for and receive a new domestic water supply permit.

Any change in the source of water for the water system, any modification of the method of treatment as described in the Permit Report, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the Division.

This permit shall be effective as of the date shown below.

FOR THE STATE WATER RESOURCES CONTROL BOARD

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Dated: 10/19/2017

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

Certificate of Issuance

OF A

WATER SUPPLY PERMIT

TO

St. Francis Retreat Center

This is to certify that a water supply permit (**Permit #02-05-17P-3500537**) has been issued to **St. Francis Retreat Center Water System** on October 19, 2017, to provide water for domestic uses. The permit was issued by the State Board, pursuant to the provisions of Division 104, Part 12, Chapter 4, Article 7, of the California Health and Safety Code. The permit is subject to the requirements of Title 22, California Code of Regulations, and to the conditions provided in the water supply permit.

A copy of the water supply permit is on file with the St. Francis Retreat Water System or may be obtained by contacting the Monterey District Office of the State Water Resources Control Board, Division of Drinking Water, 1 Lower Ragsdale, Bldg. 1, Suite 120, Monterey, CA 93940.

Jan Sweigert

Jan Sweigert, P.E.
District Engineer, Monterey District
DIVISION OF DRINKING WATER

12983

Engineering Report
In the Matter of the Water Supply Permit Application for
St. Francis Retreat Center Water System
Water System Number 3500537

San Benito County
October 2017

State Water Resources Control Board
Division of Drinking Water
Shaminder Kler, P.E., Associate Sanitary Engineer
Jan R. Sweigert, P.E., District Engineer

INTRODUCTION

A. PURPOSE OF REPORT

By applications dated January 30, 2012 and September 29, 2014, the St. Francis Retreat Center Water System (St. Francis) applied for a permit amendment for a 265,000 gallon storage tank in the distribution system and a surface water treatment plant for Well 01. The surface water treatment plant consists of a Deep Bed Manganese Greensand Multi-Media Filter for iron and manganese removal treatment followed by two trains of Strainrite Aquarite Dual Bag Filtration System, with associated oxidation and disinfection treatment by sodium hypochlorite.

The State Water Resources Control Board, Division of Drinking Water (Division) has considered the applications for the purpose of granting a new water supply permit. The purpose of this report is to present a sanitary engineering and public health evaluation of the construction of new storage tank and the surface water treatment plant and make recommendations regarding the issuance of a new water supply permit to the St. Francis Retreat Center water system.

B. WATER SYSTEM DESCRIPTION AND WELL PRODUCTION DATA

St. Francis is a transient noncommunity water system located on a rural parcel in western San Benito County. The water system provides water to the St. Francis Retreat Center through two (2) service connections for 7 residential and up to 65 visitors, according to the 2016 Annual Report to the Drinking Water Program (ARDWP). The water system includes one active well (Well 01), one

standby well (Well 03), a Deep Bed Manganese Greensand Multi-Media Filter to remove iron and manganese, a Strainrite Aquarite Potable Water Filtration System, two hypo-chlorination oxidation and disinfection systems, one 5,000 gallon treated water transfer tank, two booster pumps, one above ground 60,000 gallon concrete storage tank (Clearwell), one 265,000 gallon bolted steel storage tank, and the distribution mains. Well 01 is equipped with a 1-HP submersible pump capable of producing 9 to 15 gallons per minute. The well pumps water through the filtration and disinfection treatment plant to the 5,000 gallon transfer tank, from which the water is then pumped to the Clearwell, using a dedicated transmission main. The Clearwell discharges to the distribution system and the 265,000 gallon tank, which is constructed at the same elevation as Clearwell. The distribution system pressure is maintained by the elevation head of the storage tanks.

C. BACKGROUND INFORMATION

By letter dated May 3, 2004, St. Francis was notified of the Division's determination of Well 01 as a groundwater source under the direct influence of surface water (GWUDI). The letter required the water system to provide surface water treatment to Well 01.

Fall Creek Engineering, Inc. (FCE) conducted an engineering analysis and completed the design of the proposed installation of the Strainrite Aquarite Potable Water Filtration System, the Manganese Greensand Filter System and a 5,000 gallon transfer tank. The plans and specifications for this treatment system were reviewed and approved by the Division. The treatment facility was installed in January 2015, and the Division inspected the new treatment facility on January 27, 2015. Due to inadequate filtration of manganese by the Greensand filter, the Strainrite bags were found to be fouling more frequently than anticipated during the initial performance testing. To overcome this issue and the lowering water table, the well discharge rate was lowered to between 7.5 - 10 gpm, as the well water was found to be less turbid at lower discharge rates. Alum injection was also added upstream of the bag filters to facilitate coagulation and filtration. The Division inspected the SWTP again and met with the system operator and FCE on January 20, 2016, to discuss the treatment plant's inconsistent performance issues and proposed improvements for treatment reliability.

In May 2016 and April 2017, the well screens in Well 1 were scrubbed and cleaned to remove iron bacteria. The system noted increased well production after the rehabilitation. In August 2016, the system reported that due to the lowered raw water turbidity after rehabilitation, the addition of alum was causing rapid clogging of the Strainrite filter bags and so the system has discontinued use of alum. The treatment plant was inspected again on August 25, 2016 and April 12, 2017.

INVESTIGATION AND FINDINGS

SOURCES OF INFORMATION

The information contained in this report was acquired from the following:

- The Technical Report and the Operations and Maintenance Plan for the St. Francis Retreat Surface Water Treatment System, prepared by Fall Creek Engineering
- Division files
- Written and email communications with the Fall Creek Engineering, Acqualogic, and the water system representatives
- On Site inspections

A. SOURCES

St. Francis is supplied by one active source Well 01 which has been determined to be under the direct influence of surface water, and one standby groundwater source Well 03.

Well 01 has a discharge capacity of 9 to 15 gpm. It is equipped with a sounding probe connected to SCADA to optimize well operation based on the groundwater table and drawdown conditions. Well 01 is turned on/off by a water level sensor inside the 5,000 gallon transfer tank, also connected to SCADA. Both wells are locked inside plastic enclosures. The operator inspects the well sites two to three times per week. There is adequate drainage around the wells. The surface seals are in good condition. There are no visible cracks in the well pads. Well 01 discharge pipe is equipped with a check valve, flow meter, unthreaded sample tap, discharge-to-waste outlet, and a gate valve.

Well 03 has a discharge capacity of 3 gpm. The well is physically disconnected from the system. The well discharge pipe is equipped with a sample tap, pressure gauge, chemical injection port, flow meter, gate valve, and a check valve. The casing vent is adequately screened. There is no auxiliary power generator available for emergencies.

According to the water system's Annual Reports to the Drinking Water Program back to 2009, the maximum water produced in a single day was 54,330 gallons or 38 gpm in 2009, which is the maximum day demand (MDD) of the water system. The water system can meet the MDD with Well 01 offline, using 271,000 gallons of system storage. The standby source Well 03 does not have adequate discharge capacity to meet the MDD. The water system is able to meet four hours of peak hourly demand (PHD) of 13,583 gallons with the storage capacity. The PHD of the water system is 3,396 gallons or 57 gpm, calculated by multiplying the MDD by a peaking factor of 1.5.

B. TREATMENT

IRON AND MANGANESE REMOVAL TREATMENT SYSTEM

The raw water from Well 01 is injected with 12.5% sodium hypochlorite solution and passed through an approximately 30 ft. long pipeline contactor, to allow adequate contact time for oxidation of the iron and manganese before entering the Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment. From bottom to top, the media in the Yardney filter consists of 2 inches of crushed rock, 6 inches of interface sand, 30 inches of Manganese Greensand Plus, and 12 inches of anthracite. Although, the design filtration rate is 40 gallons per minutes, the flow rate is maintained at well discharge rate of 9 to 13 gpm. The Yardney Filter effluent is discharged to the Strainrite Aqua-Rite Filtration System. The backwash of the Yardney Multi-Media Filter is initiated automatically when the differential pressure across the filter vessel reaches 5 psi. The treated water from the 60,000-gallon concrete tank is used to backwash the multi-media filter for at least 8 minutes at 60 GPM, or until the water runs clear. At the end of the backwash cycle, the filter-to-waste is initiated for at least 10 minutes, or until the water runs clear. The treated water connection to filter backwash is protected by a reduced pressure principal backflow assembly. The treatment plant is secured inside a locked building.

SURFACE WATER TREATMENT REQUIREMENTS

Well 01 is under the influence of surface water and consequently the treatment plant must meet the requirements of the Surface Water Treatment Rule (SWTR), and the Long Term 1 and 2 Enhanced SWTR (LT1 and LT2 ESWTR). This determination was based on the positive bacteriological test

results, the well construction and the close proximity to the nearby pond. The SWTR, and LT1 and LT2 ESWTR require surface water treatment plants to achieve a minimum of 3-log reduction of Giardia cysts and 4-log reduction of viruses through multi-barrier treatment that includes filtration and disinfection, and 2-log reduction of Cryptosporidium through filtration. In addition, alternatives to filtration technologies specified in the SWTR may be used provided that the technology has been accepted by the State Board as having completed a demonstration study showing adequate pathogen removal and ability to meet turbidity performance standards established by the State Board.

The SWTR also requires watershed sanitary surveys be conducted every five (5) years to evaluate the source(s) water quality and the activities in the watershed that could potentially impact water quality and the water system's ability to meet drinking water standards. St. Francis has not conducted the required watershed sanitary survey for the source water of their treatment plant.

STRAINRITE AQUA-RITE POTABLE WATER FILTRATION SYSTEM

The Strainrite Aqua-Rite Potable Water Filtration System is an alternative filtration technology that received conditional acceptance from the Division for treatment of surface water on June 9, 2005.

The Strainrite Aqua-Rite Potable Water Filtration System, installed to treat water from Well 01, includes two (2) Stage-1 pre filters connected to two (2) Stage-2 final filters, arranged in two separate filter trains of pre and final filters. Each filter train has a maximum flow rating of 20 gallons per minute (gpm) to provide a total design capacity of 40 gpm. The filter vessels in each stage are contained in Strainrite AQ2-2 stainless steel housings. The 1st Stage vessels are loaded with Strainrite HPM99-CC-2SR bags and the 2nd Stage filter vessels with Strainrite HPM99-CCX-2SR bags. The effluent line of each final filter has a Merrill/Dole flow control valve installed to limit the maximum flow through each final filter to 10 gpm, thus limiting the combined flow through the treatment plant to 20 gpm. The treated water is stored in the 5,000-gallon transfer tank near the treatment plant, from where it is pumped to the Clearwell, using a 2.0-hp duplex booster pump system. The filters are replaced when the differential pressure across the filter train reaches 25 psi. Approximately six months' supply of primary and secondary filters is maintained on site at all times. A copy of the current operations plan is kept on site. The operator visits the site at least once per day.

FILTRATION PROCESS PERFORMANCE STANDARDS

The Strainrite Aqua-Rite Potable Water Filtration System is credited by the Division with 3-log Giardia removal, and 3-log Cryptosporidium removal. These removal credits are based on the filtration process operating under the following parameters:

Parameter	Value
Maximum Flow Rate (Each Bag Filter)	20 GPM
Maximum Differential Pressure Across Filters	25 PSIG
Turbidity Performance Standard Across Filters	0.1 NTU 95% of the time, and not to exceed 0.5 NTU at any time.
Startup Operation	Operate filter to waste for a minimum of 2 minutes after bag installation/replacement

The determination of compliance with the turbidity standard must be based on representative filter effluent samples collected at least once every four (4) hours. The Strainrite Aqua-Rite Potable

Filtration Treatment system has received no (zero) credit for virus removal from the Division based on the demonstration study.

SODIUM HYPOCHLORITE DISINFECTION

The disinfection treatment system is required to achieve a minimum of 0.5-log Giardia cyst inactivation and 4-log inactivation of viruses. However, the 0.5-log Giardia cyst inactivation is the governing treatment requirement.

The St. Francis Well 01 disinfection system consists of a Stenner Model 45MHP2 peristaltic metering pump and a thirty (30) gallon solution tank. The metering pump has a maximum capacity of 3 gallons per day (gpd) and a maximum discharge pressure of 100 pounds per square inch (psi). The sodium hypochlorite solution is injected into the finished water pipeline just before it exits the treatment building. A flow switch is mounted in the finished water line to enable the on/off operation of the metering pump. The required disinfection contact time is provided in the Clearwell.

An evaluation was conducted by Fall Creek Engineering to establish the system's ability to achieve 0.5 log Giardia cyst inactivation under the likely water quality and water demand conditions. The information and assumptions used to make this evaluation are given below:

Storage Tank: 54,000 gallons at 7.5 feet depth; 7,197 gal/ft; lowest water level 3.6 ft; short circuiting factor of 0.1; effective volume of 2,591 gallons; and peak flow rate of 20 gpm.

The required "CT" value to achieve 0.5-log Giardia cyst inactivation is based on a worst case condition of a maximum pH of 9.0 and a minimum temperature of 10 °C. The required and calculated CT values under these conditions for a free chlorine residual of 0.4 to 0.8 mg/L are tabulated below. Total contact time for the treatment plant flow rate of twenty (20) gpm is 130 minutes.

Chlorine Residual (mg/l)	Contact Time (Minutes)	$CT_{Calc.}$ (mg/l-min.)	$CT_{Reqd.}$ (mg/l-min.)	CT Inactivation Ratio (CT_{Calc} / CT_{Reqd})
0.4	130	52	35	1.49
0.6	130	78	36	2.17
0.8	130	104	38	2.74

Based on the calculations above, the system can achieve the required CT value under all conditions for 0.5-log Giardia cyst inactivation by maintaining at least 3.6 ft. water level in the clearwell and 0.4 mg/l free chlorine residual in the tank discharge pipe. The system measures the free chlorine residual for CT compliance in the filter backwash water supply connection from the tank discharge pipeline, which is located upstream of the first service connection.

TREATMENT RELIABILITY AND ALARMS

The treatment plant is designed to shut down as a result of three operational conditions going above and/or below allowable levels for: turbidity, chlorine residual, and differential pressure across the filters.

Turbidity – A Hach 1720E continuous reading turbidimeter is fed continuous samples from raw and treated water lines when the treatment plant is on-line. It is controlled by a Hach sc200 universal controller. High alarm set points of 10.0 NTU for raw water and 0.1 NTU for treated water

turbidimeter activate a visual alarm and automatically shut the treatment plant down. The HACH sc200 controller is also connected to the main controller and the Chessell circular chart recorders.

Chlorine Residual – A Hach CL17 Free Chlorine Analyzer is used to monitor the free chlorine residual in the treated water entering the distribution system. The analyzer outputs the data to the main controller and the chart recorder. It has low alarm and shut down set point of 1.0 mg/L and a high alarm and shut down set point of 3.0 mg/L.

Differential Pressure – The system is equipped with three differential pressure gages. One measures the pressure differential across the pre-filters, the second measures the pressure differential across the final filters, and the third measures the pressure differential across both sets of filters. To protect the integrity of the filter bags, the differential pressure across the pre-filter and final filter bags together must not exceed 25 psi. The differential pressure gages activate a visual alarm at 20 psi and automatically shut the treatment plant down if the inlet pressure exceeds 25 psi.

A pressure relief valve is installed in the treatment plant influent line to protect the filter bags from pressure surges. Each individual filter vessel is also fitted with a pressure relief valve for added safety.

The Division's approval of the filtration technology was based on a requirement that the differential pressure measured across pre and final filters does not exceed 25 psi and the flow rate across each filter does not exceed 20 gpm. Each filter train is equipped with a flow control valve installed on it that limits the maximum flow through it to 10 gpm. To ensure that the filters are used efficiently, the water system shall also observe the differential pressure across pre-filters compared to that across the final filters and replace the filters contributing to higher pressure loss. Additionally, if the pre-filters are found to be causing higher pressure loss in majority of cases, the water system must ensure that final filters are also replaced after a reasonable time.

EMERGENCY CHLORINATION PLAN

An Emergency Chlorination Plan has been developed and incorporated in the treatment plant operations plan.

TREATMENT PLANT OPERATIONS

The treatment plant is automatically started and shut down by the preset water levels in the transfer tank. There is no standby power to operate the system well or treatment plant. There is a battery backup system to provide power only for the instrumentation and control system.

An Operations and Maintenance plan has been developed for the surface water treatment plant as required by Section 64661, Chapter 17, Title 22 of the California Code of Regulations (CCR), and submitted to the Division.

OPERATOR CERTIFICATION REQUIREMENTS

The Division has completed an evaluation of the water treatment plant processes and the water quality of the raw water that will supply the treatment plant, for the purposes of establishing the appropriate treatment plant classification and the associated water treatment plant chief operator and shift operator certifications required to operate the plant.

Pursuant to this evaluation, the Division has determined that the surface water treatment plant merits a classification of "T2". Further, the required certifications of the Chief Operator and Shift Operators are "T2" and "T1", respectively.

St. Francis will be required to operate the treatment plant with personnel meeting these operator certification requirements. The chief operator Mr. Edward DeGroot is T2 and D1 certified for treatment plant and distribution system operation, respectively. The water system also has a contract with Acqualogic Inc. as a backup operator for the treatment plant.

C. STORAGE

CLEARWELL

The 60,000-gallon concrete Clearwell receives treated water from the 5,000-gallon transfer tank and discharges to the distribution system. The Clearwell is only filled to height of 5.5 ft. due to its structural condition evaluated by a tank specialist. Therefore the useful storage of the Clearwell is only 40,000 gallons. It is equipped with separate inlet/outlet pipes. There are many fine cracks on the tank exterior with a few minor leaks. The interior condition is unknown. The roof hatch is locked and the vents and overflow pipe are screened. The roof vent screens are intact. The tank was evaluated and cleaned in 2015.

265,000-GALLON BOLTED STEEL STORAGE TANK

The 265,000-Gallon bolted steel tank was installed in October 2009, and is in use in the system. The tank was installed in order to have adequate water storage for fire protection. The permit amendment application for the addition of the tank was submitted in January 2012. As required by the December 2011 inspection letter, the water system submitted a tank circulation plan in February 2016 and modified the tank to improve the water circulation in the tank. The tank is equipped with a single inlet/outlet connection to the distribution system approximately 2 feet above the tank bottom. The useful storage of the tank is 227,000 gallons. The overflow pipe is equipped with a flap valve, screen, and air-gap protection. The roof vent is adequately screened. The shoebox type roof hatch and the access ladder cage are locked. The storage tank is constructed per AWWA D103-97 design specifications.

D. PUMPS, PUMP FACILITIES AND CONTROL

The treated water from the 5,000-gallon transfer tank near the treatment plant is pumped to the Clearwell, using a 2.0-hp duplex booster pump system. There are no other booster pumps or pressure reducing valves in the St. Francis distribution system. The distribution system pressure is maintained using the elevation head provided by the storage tanks.

E. DISTRIBUTION SYSTEM

The St. Francis distribution system has one pressure zone. The distribution mains are constructed of 2" to 8" diameter corrugated or galvanized iron pipes. There are no asbestos cement pipes, lead welding or piping in the water system.

F. MONITORING, REPORTING AND DATA VERIFICATION

Source Water Bacteriological Monitoring – St. Francis is required to monitor the raw water from Well 01 once every month for the total coliform and E.coli. A review of the record from the past two years shows consistent monthly monitoring except November 2015 and September 2016 when no

samples were collected. There were twelve incidents of total coliform detection in Well 01, and one E.coli positive results reported in the past two years.

Distribution System Bacteriological Monitoring – St. Francis has a Division approved Bacteriological Sample Siting Plan (BSSP), dated April 30, 2010, which requires collecting one routine sample per month from one distribution site. A review of past two years' bacteriological record shows that the distribution monitoring is up-to-date except in November 2015 and September 2016 when no samples were collected and, as a result, Total Coliform Rule monitoring and reporting violations were issued. There was no incident of total coliform positive.

Title 22 Regulated Inorganic Chemicals – The water system is not required to monitor Well 01 and Well 03 for inorganic monitoring with the exception of nitrate, which is discussed below.

Nitrate and Nitrite Monitoring – The water system is required to monitor Well 01 for nitrate annually and for nitrite once every three years. The monitoring is up-to-date with nitrate (as N) reported at 1.6 mg/L and nitrite was not detected during the last monitoring. The next nitrate and nitrite monitoring for Well 01 is due in **2018.**

The standby source Well 03 is required to be monitored once every nine years for nitrate and nitrite. It was last monitored in 2011 and next monitoring is due in **2020**.

Title 22 Regulated General Minerals (GM)/General Physical Standards (GPs) – The water system is not required to monitor Well 01 and Well 03 for GM/GPs.

Radiological Monitoring – The water system is not required to monitor Well 01 and Well 03 for radionuclides.

VOC Monitoring – The water system is not required to monitor Well 01 and Well 03 for VOCs

MTBE Monitoring – The water system is not required to monitor Well 01 and Well 03 for MTBE.

SOC Monitoring – The water system is not required to monitor Well 01 and Well 03 for SOCs.

Distribution System Lead and Copper Monitoring – St. Francis is not required to conduct lead and copper monitoring in the distribution system.

Distribution System Disinfectant/Disinfection Byproducts Rule Monitoring – St. Francis is not required to conduct D/DBPR monitoring in the distribution system.

Distribution System Asbestos Monitoring – St. Francis does not have asbestos cement pipes in the system. The monitoring for asbestos in the distribution system is not required.

Surface Water Treatment Plant Effluent Monitoring – The surface water treatment plant effluent monitoring requirements are addressed in the conclusions and recommendations section of this report. All reporting forms were emailed to the water system for monthly reporting after treatment plant startup.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A. TREATMENT PLANT

The State Water Resources Control Board (SWRCB) as lead agency pursuant to California Environmental Quality Act (CEQA) has reviewed the Environmental Information Form prepared by St. Francis Retreat Center (Center) on September 24, 2014. The proposed project includes the

construction a new treatment system (Strainrite Bag Filtration System), housing structure, chlorination system, 5,000 gallon water storage tank, pump, iron and manganese media filter, and appurtenant structures to address issues related to the Long Term Enhanced Water Treatment Rule.

The SWRCB Environmental Review Unit (ERU) has determined that this project is categorically exempt from the California Environmental Quality Act under Class 3 exemption pursuant to California Code of Regulations Title 14, Section 15301, and Title 22, Section 60101(c). Pursuant to CEQA Guidelines, Section 15062, the ERU filed a Notice of Exemption through the Governor's Office of Planning and Research, State Clearinghouse on October 29, 2014. The California Department of Fish and Wildlife filing fees do not apply to exempted projects.

As a lead agency, SWRCB has considered the Environmental Information Form and project description and hereby makes the following findings for the permit amendment:

The System Improvement Project is exempt from CEQA under CCR, Title 14:

- Class 3 (CCR, Title 14, Sec 15303 and Title 22, Section 60101 (c))

B. 265,000-GALLON BOLTED STEEL STORAGE TANK

In 2009, San Benito County Planning Department as a lead agency for CEQA for the tank construction project, developed an Initial Study/Mitigated Negative Declaration, with a Mitigation Monitoring and Reporting Program and CEQA Findings, and filed an Notice of Determination with the County.

The SWRCB ERU has determined that the filing of tank CEQA documents to the State Clearinghouse is not required and the supporting information is adequate to proceed with a water supply permit.

APPRAISAL OF SANITARY HAZARDS

A. SOURCE WATER

A review of the raw water bacteriological monitoring results from the Well 01 since January 2013 shows several total coliform positive incidents. There was one E.coli positive detection in May 2016 while the well was offline for cleaning. The total coliform levels were between 1 MPN and >200.5 MPN. In addition, Well 01 produces water with high turbidity during start-up. The high concentrations of iron and manganese in the raw water contribute to high turbidity. The high turbidity and coliform results from the source water substantiate the requirement for the treatment plant to achieve the minimum Giardia, Cryptosporidium, and virus removal under the SWTR. Further, the high turbidity indicates that the combination of iron and manganese removal treatment and Strainrite Aqua-Rite Potable Filtration System is an acceptable treatment system to meet the SWTR. A review of the monthly treatment plant reports starting May 2016 shows a trend of reduced turbidity in the well water after rehabilitation.

The Well 01 is currently installed with a 9 to 15 gpm pump, significantly below the design flow rate of 40 gpm of the Yardney Deep Bed Multi-Media Filtration System as well as below 20 gpm, the maximum allowed flow rate across each Strainrite Filtration Train. The well on/off operation is automatically controlled by the water level sensors switch installed inside the 5,000-gallon transfer tank.

B. IRON AND MANGANESE REMOVAL TREATMENT SYSTEM

The filter vessel internal coating and the Multi-Media used for iron and manganese removal treatment are ANSI/NSF Standard 61 Certified. The backwash supply water line from the treated water storage tank is protected with a reduced pressure backflow prevention device. The backwash water and the filter-to-waste water are discharged to the nearby pond with air-gap separation to prevent cross-contamination.

C. SURFACE WATER TREATMENT

Fall Creek conducted an engineering study in September 2012 to evaluate the source water and the treatment system. The engineering study was reviewed and approved by the Division and the Strainrite Aqua-Rite Potable Filtration System was determined to consistently and reliably meet the turbidity performance standard of 0.1 NTU. Consequently, the filtration process should reliably achieve 3-log Giardia and 3-log Cryptosporidium removal.

A review of the monthly reports submitted since May 2016 shows CT ratio between 7.74 and 47.47. The system has been able to meet the turbidity performance standard by maintaining turbidity below 0.1 NTU in at least 95.2% of the time and not exceeding 0.5 NTU at any time. In May 2017 the combined effluent turbidity was below 0.1 NTU in 90.7% of times. Also, there were two instances of combined effluent turbidity exceeding 0.5 NT, which was reportedly caused by a fouled turbidimeter.

The disinfection treatment system should reliably provide the required 0.5-log Giardia and 4-log virus inactivation, respectively. The chlorine residual is continuously monitored after CT is completed. The SWTP monthly reports show calculated CT significantly higher than the required CT.

The ANSI/NSF Standard 60 certified sodium hypochlorite solution used for oxidation of iron and manganese and disinfection is manufactured by HasaChlor and has solution strength of 12.5%.

The treatment system's reliability features are adequate to ensure the plant only produces water that meets the requirements of the surface water treatment regulations. To ensure proper functioning of the plant's alarm/shut down features, they are tested on a regular basis.

The well pump and the chlorine injection pumps have the capability to operate in 'auto' mode as well as 'hand' (manual) mode. During normal operation of the treatment plant, the switches should remain in the 'auto' mode, so that they cannot override the automatic alarm and shutdown functionality.

The treatment plant effluent is discharged to the 5,000-gallon transfer tank, from where it is pumped to the Clearwell using a 2-hp duplex booster station, automatically operated by the water level sensor switch installed inside the Clearwell. The disinfection process is designed to achieve the required Giardia and virus inactivation through the contact time provided by effective volume of the Clearwell.

The Well 01 is located inside a locked storage cabinet and the treatment system is located inside a locked building near the well.

D. WATERSHED SANITARY SURVEY

Per Section 64665, Title 22, CCR, St. Francis is required to conduct a Watershed Sanitary Survey of the GWUDI source – Well 01 at least once every five (5) years. A Watershed Sanitary Survey for Well 01 has not been completed. The Survey must be completed to evaluate the source water quality and the activities in the watershed that could potentially influence water quality and the water system's ability to meet drinking water standards. The report must be submitted to the Division by **December 31, 2017**.

E. LT2 ESWTR

The St. Francis water system is designated as a "Schedule 4" system under the LT2 ESWTR based on serving less than 10,000 people. A review of the Division's record shows that the water system has been conducting monthly Total Coliform and E. coli monitoring since May 2004. The results for E.coli were negative for all samples throughout the noted monitoring period except one incidence during well rehabilitation in May 2016. Based on these results, the water system is not required to install supplemental treatment for additional Cryptosporidium removal. The one incident of E.coli positive in Well 01 was while it was offline for rehabilitation and possibly contaminated during the cleaning process. The subsequent monitoring after the disinfection showed no E.coli presence in Well 01.

St. Francis has submitted a LT2 ESWTR monitoring plan and schematic for the 2nd round of monitoring in Well 01. The system must follow the Division approved plan to begin the monitoring in **October 2017**.

F. STORAGE TANKS

The 5,000-gallon polyethylene plastic transfer tank is ANSI/NSF 61 certified. The roof hatch is secured and the site is enclosed by a 6 ft. high chain-link fence. The tank is equipped with a drain pipe and an overflow pipe with air-gap protection.

The Clearwell is constructed of reinforced concrete. The inlet piping is connected at the top of the tank and the outlet piping is connected at the bottom of the tank, at approximately 90 degrees to each other. The roof of the tank consists of corrugated metal sheets supported by a wooden frame. The roof access hatch is locked. The roof vents are adequately screened.

The ANSI/NSF Standard 61 certification for the 265,000-gallon bolted steel tank material in contact with drinking water was submitted to the Division. The tank design conforms to AWWA D103-97 Specifications. There is adequate security around the tank and all openings are protected to prevent tank contamination from insects, birds, and rodents.

G. ALTERNATIVE TECHNOLOGY OPERATIONAL REPORT

The monthly alternative technology operations reports are consistently being submitted since June 2016. The final monthly evaluation report must be submitted to the Division by **December 10, 2017**. As part of the approval of alternative technology for compliance with the Surface Water Treatment Rule, a report on the effectiveness of the technology during the first year of operation must be submitted to the Division. St. Francis must prepare and submit the report to the Division by **December 31, 2017**. See Provision No. 33 for the information required on the report.

CONCLUSIONS AND RECOMMENDATIONS

It is the finding of the State Water Resources Control Board, Division of Drinking Water, that the installation and operation of the iron and manganese removal treatment system, Strainrite Aqua-Rite Potable Filtration System with sodium hypochlorite disinfection will meet the requirements of the SWTR.

Therefore, it is hereby recommended that a new water supply permit be issued to the St. Francis Retreat Center water system, subject to the following provisions:

General Provisions

1. The St. Francis Retreat Center water system shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.

2. All water supplied by the St. Francis Retreat Center water system for domestic purposes shall meet all applicable Maximum Contaminant Levels (MCLs) established by the California Division of Drinking Water. If the water quality does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards, subject to permit approval.

3. The following Primary Station (PS) Codes are assigned to the approved drinking water sources and treatment systems for the purpose of electronic submittal of water monitoring data to the Division:

Monitoring Site	PS Code
Well 01 – Surface Influenced	3500537-001
Fe Mn and Strainrite Trtmt Effluent	3500537-004
Well 03 – Standby	3500537-003
Well 03 – Cl_2 Treated	3500537-005

4. No changes, additions, or modifications shall be made to the sources or treatments mentioned in Condition No. 3 unless an amended water permit has first been obtained from the Division.

5. All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765 of the CCR. The surface water treatment plant is classified as a T2 water treatment plant requiring a chief operator with a minimum of T2 certification. All shift operators must have a minimum of T1 certification. All operators with responsibilities related to operation, monitoring, or reporting of the surface water treatment facilities shall be appropriately certified.

6. All chemicals added to the water for treatment must be certified as meeting the specifications of ANSI/NSF Standard 60 for direct additives to drinking water.

7. The drinking water filtration treatment process approved in this permit amendment includes the following:

    a. Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment.

b. Strainrite Aqua-Rite Potable Filtration System consisting of two (2) trains of pre-filters and final filters operating in parallel.

c. The filter vessels in each train are enclosed in the Strainrite AQ2-2 stainless steel housings.

d. Strainrite HPM99-CC-2SR pre-filter bags are installed in the Stage 1 vessels.

e. Strainrite HPM99-CCX-2SR final filter bags are installed in the Stage 2 vessels.

8. The equipment listed in No. 7 above are the only filtration equipment approved for use in this treatment plant. St Francis is prohibited from modifying or repairing any of the listed equipment with parts that are not approved by the manufacturer for the specified model numbers, without written approval from the Division.

9. The treatment plant filtration and disinfection processes shall be operated to achieve a total combined pathogen removal and inactivation of 3-log Giardia, 4-log virus, and 2-log Cryptosporidium at all times.

10. St. Francis shall complete a watershed sanitary survey that demonstrates a lack of virus hazard in the watershed for the pond near Well 01, and submit to the Division by **December 31, 2017**.

Yardney Deep Bed Multi-Media Filtration System Operation

11. The Yardney Deep Bed Multi-Media Filtration System shall be operated such that the maximum head loss (pressure differential) through the filter shall not exceed 10 psi.

12. When the differential pressure across the multi-media filter reaches 5 psi, the media must be backwashed for at least 8 minutes at 60 gpm, followed by a filter-to-waste for 10 minutes.

13. The multi-media must be inspected and replaced following manufacturer's recommended procedure and frequencies, with ANSI/NSF Standard 61 Certified Multi-Media only.

Yardney Deep Bed Multi-Media Filtration System Process Monitoring

14. St. Francis must monitor iron and manganese in the treatment plant effluent at least once per month and the results must be electronically submitted to the Division by the **10th** day of the following month.

Strainrite Aqua-Rite Potable Filtration System Operation

15. The Strainrite Aqua-Rite Potable Filtration System shall be operated to meet the following turbidity performance standards:

    a. The effluent turbidity shall be equal to or less than 0.1 NTU in 95 percent of the measurements taken each month and shall not exceed 0.5 NTU at any time.

16. When any individual vessel bag is replaced, the plant shall filter-to-waste for a minimum of **two (2)** minutes.

17. The raw water flow through each filter train shall not exceed **twenty (20) gallons** per minute.

18. The differential pressure as measured across pre and final filter bags shall not exceed **twenty-five (25) psig** at any time.

19. The Strainrite Aqua-Rite Potable Filtration System shall be operated in the **"auto"** mode during normal operating conditions.

Strainrite Aqua-Rite Potable Filtration System Process Monitoring

20. St. Francis must monitor and record the turbidity of the combined filtration effluent at least once every **fifteen (15) minutes** when the treatment system is in operation. Monitoring shall be conducted in accordance with the approved Operations Plan.

21. St. Francis shall calibrate the turbidimeter(s) in accordance with the manufacturer recommendations. Calibration records must be maintained that include date, model, and location of monitoring equipment, and submitted in monthly reports to the Division.

Sodium Hypochlorite Disinfection Treatment Process Operation

22. The sodium hypochlorite disinfection treatment process shall be operated to achieve a minimum of 0.5-log Giardia and 4.0-log virus inactivation at all times.

23. A minimum free chlorine residual of 0.4 mg/L shall be maintained in the 60,000-gallon tank discharge pipe, upstream of the first service connection. The treatment plant instrumentation and control system shall be configured to activate an automatic shutdown alarm if the free chlorine residual at the first connection is not maintained at 0.4 mg/L or greater for a period not to exceed fifteen (15) continuous minutes.

24. The water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four (4) hours in any 24-hour period. Furthermore, a disinfectant residual shall be detectable in at least 95 percent of the samples taken from the distribution system and residual measurements shall be made in conjunction with monthly coliform sampling.

Sodium Hypochlorite Disinfection Treatment Process Monitoring

25. The combined filter effluent discharged from the Clearwell upstream of the first distribution system connection shall be **continuously** monitored for chlorine residual and at least **once** daily for temperature, and pH during peak demand period of the day.

Treatment Plant Operations Plan

26. St. Francis must operate the treatment plant in accordance with the Division approved Operations Plan. A copy of the current operations plan must be maintained at the treatment facility and any modification to the operations plan must be approved by the Division.

Chemical Water Quality Monitoring – Well 01

27. St. Francis shall monitor Well 01 for iron and manganese **once every three (3) months** and the results must be electronically submitted to the Division by the tenth day of the following

month.

28. St. Francis must conduct **annual** nitrate monitoring of Well 01 and submit the results electronically to the Division by the **10th** day of the following month.

Bacteriological Water Quality Monitoring

29. St. Francis must conduct **monthly** raw water total coliform and E. coli monitoring using an enumeration method at Well 01. All results must be submitted to the Division by the **10th** day of the month following sample collection.

30. St. Francis must conduct **monthly** monitoring of the treatment plant effluent for total coliform and E. coli using an enumeration method. All results shall be submitted to the Division by the **10th** day of the month following sample collection.

Reporting Requirements

31. St Francis must submit a **monthly** report on the operation of the iron and manganese removal treatment and surface water treatment facilities by the **10th** day of the following month. The report must be signed by the person responsible for the operation of the water treatment plant. The report must include, as a minimum, all of the applicable elements identified in Section 64664, Chapter 17, Title 22, CCR.

32. St. Francis shall maintain accurate and complete treatment plant operation records in accordance with Section 64662, Chapter 17, Title 22, CCR. The records must include as a minimum, the following information:

    a. The results of all required monitoring.

    b. Quantity of water produced, plant flow rates, filtration rates, and hours of operation.

    c. Dates and descriptions of all major equipment and process failures and the corrective actions implemented.

    d. Dates of all filter maintenance and inspections performed and a description of the results.

33. St. Francis shall submit a report on the effectiveness of the treatment plant operation for the first year of operation. The engineering report shall include, 1) a description of the effectiveness of each treatment process operation; 2) the results of all water quality analysis conducted and an evaluation of compliance with performance standards under actual operating conditions; 3) an assessment of any problems experienced and the corrective actions taken to achieve resolution, and; 4) a plan and time schedule for implementation of any treatment plant process changes or improvements; 5) an evaluation of the head losses across the pre-filters, the final filters and the filter system as a whole, compared to when filter bags were replaced. The report shall be submitted to the Division by **December 31, 2017**.

34. St. Francis shall retain all treatment plant records for a minimum of five (5) years and shall be made available to the Division upon request.

35. All water quality samples must be analyzed by a state certified laboratory. All source water quality analytical results must be submitted to the Division electronically under the PS Code specified in Provisions 3 above, by the **10th** day of the month following completion of analysis.

Report Prepared by:

Shaminder Kler, P.E.
Associate Sanitary Engineer

Report Approved by:

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Appendices
Appendix A: Permit Amendment Applications
Appendix B: Department Conditional Acceptance Letter for the Aqua-Rite Filtration System
Appendix C: Filter Plant and Storage Reservoir Data Sheets
Appendix D: Water Treatment Operator Worksheet
Appendix E: Service Area Map

Appendix A
Permit Amendment Applications

STATE OF CALIFORNIA
APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT AMENDMENT
FROM

Applicant: St Francis Retreat Center
(Enter the name of legal owner, person(s) or organization)

Address: 549 Mission Vineyard Road, San Juan Bautista, 95045
System Name: St Francis Retreat Center
System Number: 35000537

TO:
Schminder Kler
Monterey District Sanitary Associate Engineer
Drinking Water Field Operations Branch
California Department of Public Health
1 Lower Ragsdale Drive, Bldg. 1, Ste. 120
Monterey, CA 93940

Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to St Francis Retreat Center

2014 SEP 29 AM 10 11

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

Signed By: Edward J. De Groot
Print Name: Edward J. De Groot
Title: Sys. Op.
Address: 549 Mission Vineyard Rd
San Juan Bautista, CA 95045
Telephone: 831-623-4234

Dated: 9-24-2014

DDWEM: 08/2007

3500537

STATE OF CALIFORNIA
APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT AMENDMENT
FROM

Applicant: St. Francis Retreat
(Enter the name of legal owner, person(s) or organization)

Address: 549 Mission Vineyard Rd., San Juan Bautista, CA 95045

System Name: St. Francis Retreat

System Number: 3500537

TO: Department of Public Health
Drinking Water Field Operations
Monterey District Office
1 Lower Ragsdale, Bldg. 1, Suite 120
Monterey, California, 93940

Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to add a 265,000 gallon water storage tank to the system and
(Applicant must state specifically what is being applied for - whether to construct new works, make alterations or additions in works or sources, or change or modify treatment.)

Add the proposed Surface Water Treatment Plant for Well #1 (3500537-001).

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

By: Edward J. Hood

Title: Business Manager and System Operator

Address: 549 Mission Vineyard Rd., PO Box 970
San Juan Bautista, CA 95045

Telephone: (831) 623-4234

Dated: 1-30-2012

DDW 11/2007

Appendix B
Department Conditional Acceptance Letter for the Aqua-Rite Filtration System

State of California—Health and Human Services Agency
Department of Health Services

California Department of Health Services

SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

June 9, 2005

Mr. Dan Mosley
Senior Sales & Technical Manager
Manager Potable Water Products Division
The Strainrite Companies, Inc.
65 First Flight Dr
Auburn, ME 04211-1970

Dear Mr. Mosley:

CDHS CONDITIONAL ACCEPTANCE OF AQUA-RITE POTABLE WATER FILTRATION SYSTEM AS AN ALTERNATIVE FILTRATION TECHNOLOGY

Based on the results of testing conducted by BioVir Laboratories and reported in "Particle Reduction Study for Strainrite's "AQUA-RITE" Potable Water Filtration System," (no publication date; signed April 2005) the Water Treatment Committee (WTC) of the California Department of Health Services' Drinking Water Program, will accept the use of the Strainrite Companies' AQUA-RITE Potable Water Filtration System as an alternative filtration technology to meet the physical removal requirements of the current California Surface Water Treatment Rule (SWTR).

The AQUA-RITE Potable Water Filtration System is accepted as an alternative SWTR filtration technology under California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f) as configured in the BioVir report cited above with the HPM99-CC-2-SR prefilter in front of the HPM 99-CC-35-2-SR final filter (which according to your last e-mail will be manufactured, sold, and distributed as the HPM99-CCX-2-SR). Although not documented in the BioVir report, we understand the AQ2-2 vessel equipped with a "seal Rite" bag flange is a required component of this system and is used as the housing for the prefilter and final filter. We also understand that these filters have not been tested in other Strainrite housing and that it would be inappropriate to use these filters in housings other than the AQ2-2.

Review and approval for the proposed design of any water treatment system proposing to use your technology will be handled on a case-by-case basis by the Drinking Water Program's individual District offices or local primacy agencies. Since the Drinking Water Program's District Engineers are responsible for evaluating the source water quality to

be treated and issuing an operating permit, they will set the overall removal and inactivation requirements for a given installation. Design engineers proposing to use your alternative filtration technology should be aware that the minimum log removal requirements established by the SWTR are to be met using multiple treatment barriers. Your technology is recognized as being *one* component of this multiple barrier. Approval for the use of your technology in any drinking water application is granted through the domestic water supply permitting process.

The AQUA-RITE Potable Water Filtration System is granted the removal credits shown in Table 1, and is subject to the operating parameters identified in Table 2. As the unit was not challenged to demonstrate virus removal, the units receive no log virus removal credit (0-log) and are subject to the limitations outlined in California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f and g).

Table 1 – Filter Removal Credit

Target Organism	Removal Credit (log_{10})
Giardia	3.0
Cryptosporidium	3.0
Virus	0.0

Table 2 – System Operating Parameters

Parameter	Value
Maximum Flowrate into system	20 gpm
Max Differential Pressure (as measured across the prefilter and final filter)	25 psid
Turbidity Performance Standards	0.1 NTU 95% of the time Not to exceed 0.5 NTU
Additional Design Criteria	1. Pressure relief to protect bag from an excessive pressure surge. 2. Filter to waste for 2 minutes after bag installation. 3. Means to measure the pressure drop across each filter.

Since the alternative filtration technology testing focused on pathogen removal (via a surrogate), only the pressure differential across the system was measured. Since the maximum pressure differential across the system (as measured across the prefilter and the final filter) is set as a condition of operation, we request specific guidance (e.g., pressure differential or other information) that the operators can use to indicate the final filter requires replacement. For example, your guidance should include, but not be limited to end of life or failure (partial or catastrophic). We are trying to avoid a situation in which an operator continually replaces the prefilter only because the final filter is not functioning properly. Similar guidance is requested for the prefilter.

Experience has led us to believe that bag filter systems may not be appropriate for water sources that contain high concentrations of submicron-sized particles (<2 μm). Before installing a new bag filter system, the source water should be evaluated to determine whether or not submicron-sized particles are present in concentrations that would prevent the bag filter from meeting the 0.1 NTU turbidity standard. Such an evaluation can be completed using either a pilot plant or a 2-μm paper/glass fiber filter in a laboratory setting. If the pilot plant or 2-μm lab filter does not reduce turbidity to less than 0.1 NTU the source may not be amenable to filtration using a bag filter.

Any changes made to any feature, part, or product used on the AQUA-RITE Potable Water Filtration System should be reported (in writing) to the Department in advance of making the changes to any production version of your system sold in California. The detail of your written notification will be reviewed to determine if additional performance testing will be required. Consequently the letter and its appendices should provide sufficient detail to satisfy the reviewing body. Should additional testing be required, the WTC will review all future study protocols. The WTC must approve all study protocols as a condition of accepting the final report. The WTC will also review the final report and, if appropriate, make testing and permit provision recommendations regarding any future changes.

It is our understanding that all the primary components (HPM99-CC-2-SR prefilter HPM99-CCX-2-SR final filter) are to be used once and then discarded (no backwashing; no chemical clean in place). We further understand that the components of the AQUA-RITE Potable Water Filtration System are undergoing NSF Standard 61 certification (drinking water components) and that the results will be released to this regulatory body as soon as they become available. In addition, we understand that no other treatment chemicals or additives will be used to enhance or modify the performance of these units at this time. Should this change, please contact us so we can provide you with guidance regarding the regulatory requirements that cover the use of NSF (or equivalent) certified chemicals.

We would appreciate guidance on steps our field engineers can take to track the HPM99-CC-2-SR prefilter and HPM99-CCX-2-SR final filter to ensure the products are not being reused in the systems.

As we have received a number of inquiries regarding your system, we would be willing to provide any contact information to utilities that you would be willing to provide. If other contacts, such as a local representative, are available, could you provide us with their contact information at your convenience (our listing of alternative filtration technologies is updated periodically, but not on any regular schedule).

Should you have any questions regarding the content of this letter, please feel free to contact me at (510) 849-5050.

Very truly yours,

Original signed by

Richard H. Sakaji, PhD, PE
Senior Sanitary Engineer

cc: WT Committee
chron

Appendix C
Filter Plant and Storage Reservoir Data Sheets

State of California
Drinking Water Field
Operations Branch

Filter Plant Data

Department of Health Services
Monterey District

System Name: St. Francis Retreat Center **No:** 3500537
Source of Information: St. Francis Retreat
Collected By: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Name:	
Location:	St Francis Retreat
Purpose: (Fe/Mn Removal, SW Treatment, etc.)	Fe/Mn removal, Compliance with SW treatment rules
Year Operation Began:	To be determined (2014)
Flow, How Measured	Digital Flow Meter
Average Flow:	Restricted to 20 GPM
Peak Daily FLow:	Restricted to 20 GPM
Average Hours of Operation:	To be determined (estimated to be 12 hrs)
Filters	
Design Capacity:	20 GPM (Bag filters up to 40 GPM)
Type:	Greensand Media Prefilter and Bag Filters
Number:	1 Greensand Media Filter and 4 Bag Filters (5 total)
Size:	
Rate Controllers:	Yes
Rate of Filtration:	20 GPM
Loss of Head Gauges:	Yes
Individual Filter Monitoring: (Grab or continuous)	Continuos
Media Inspection: (frequency)	Bag Filters Quarterly or When Changed; Media Filter Annually
Wash Water:	
Backwashing Time/Interval Determined By:	Controller initiates backwash at 7 psi differential for 12 min
Source:	Treated water from distribution system
Drain To:	Pond
Percent Used:	1.5%
Rate of Backwash:	60 GPM
Regeneration:	
Chemicals Used and Dose:	Continuous Chlorine at 0.5 GPD
Time Retained:	NA
Time Rinsed:	NA
Pre-Treatment: (Describe process, design capacity and chemicals used)	Chlorine Oxidation, Greensand Media Filtration at 20 GPM
Post-Treatment: (Describe process, design capacity and chemicals used)	Chlorine Disinfectoin at 20 GPM
Disinfectant/Dose/Contact Time:	Chlorine / 0.5 GPD / 130 minutes minimum
Describe Reliability Features:	Filters run at 50% design capacity, control/monitoring system is continuous and automated
Clear Well: (Capacity in Gallons)	5,000 gallons
Laboratory Control: (Describe parameters measured and frequency)	Turbidity and Chlorine Residual Measured Continuosly and Recorded Daily
Operators:	
Supervisor: (Name and Grade)	Ed Degroot: D1 and T2
Shift Operator: (Name and Grade)	NA
Water:	
From:	Well #1
Sent To:	Storage

Defects and Remarks:	
Attach Schematic of Unit Process:	Attached to other submittal documents

Filter Data Sheet.doc

State of California
Drinking Water Field Operations
Branch

Reservoir Data

Department of Public Health
Monterey District

System Name: St. Francis Retreat Center **No:** 3500537
Source of Information: St Francis Retreat
Collected By: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Number or Name	30,000 gal	60,000 gal	270,000 gal
Date Constructed	1950s	1960s	2010
Purpose (storage, sand trap, etc)	Storage/ Cl Contact	Storage/ Cl Contact	Storage/Cl Contact
Capacity	30,000 gal	60,000 gal	270,000 gal
Location			
Specific Location (cross streets, etc)	St Francis Retreat	St Francis Retreat	St Francis Retreat
Neighborhood			
Size of Lot			
Fencing			
Construction			
Material: Sides	Concrete	Concrete	Steel
Floor	Concrete	Concrete	Steel
Cover or Roof	Metal	Metal	Steel
Height Top of Walls Above Ground	8'	8'	20'
Surface Drainage to Reservoir Possible?	No	No	No
Ventilation	Yes	Yes	Yes
Screening	Yes	Yes	Yes
Inlet and Outlet Arrangement			
Inlet: Location	Top		Top
Distance Above Bottom	7'	7'	19'
Outlet: Distance From Inlet	15'		
Distance Above Bottom	6"		
Drain to Where	Landscape	Landscape	Rock Dissipater
Overflow to Where	Landscape	Landscape	Rock Dissipater
Sewer or Other Hazardous Connection (If so, attach sketch)	No	No	No
Relation to System			
Receives From	Treatment System	Treatment System	Treatment System
Delivers To	Distribution System	Distribution System	Distribution System
Defects and Remarks (Include statements on cleaning practices, condition of structure -- particularly of roof, dimensions and shape of reservoir, leakage, kind and location of access openings, protection against insects, birds, and rodents.)			

RESERVOIR DATA SHEET.DOC

State of California
Drinking Water Field
Operations Branch

System Information Sheet

Department of Public Health
Monterey District

Water System Name: **St Francis Retreat Center**

System Number: **3500537**

Ownership and Contact Information

System Owner:	St. Francis Retreat	Primary Contact Person:	Ed DeGroot
Address:	549 Mission Vineyard Rd.	Title:	Business Manager
	San Juan Bautista	Address:	549 Mission Vineyard Rd.
Telephone No:	(831) 623-4234		San Juan Bautista
		Telephone No:	(831) 623-4234

Principal Features of System

Sources of Supply

Source Name	Source type *(creek, spring, well, etc.)*	Capacity *(gpm)*	Frequency of use	Comments
Well #1	Well	40 gpm	11,000 GPD	None

Treatment Provided

Describe type of treatment, reason provided, chemicals added, filtration type, waste discharge:

Proposed: Multi-Barrier Treatment System – Dual Bag Filtration for compliance with drinking water rules

Proposed: Chlorine Oxidation and Disinfection

Existing: Chlorine Disinfection

Proposed: Deep Bed Manganese Greensand Media Filter for pretreatment to bag filters and removal of Fe & Mn

Proposed: Waste Discharge: Backwash from Media Filter to Lake

Pumping Facilities

List number of booster pumps & capacity:

Proposed: Duplex Booster Pump System (Two pumps total) / Capacity (Each pump): 2HP, 20 GPM @ 240' TDH

Existing: One well pump / Capacity: 20 GPM

Storage Tanks

Storage Tank Name	Capacity *(gallons)*	Tank Material	Interior Coating Material	Condition
30,000 Gallon	30,000	Reinforced Concrete	Concrete mortar	Standby
60,000 Gallon	60,000	Reinforced Concrete	Concrete mortar	Good
270,000 Gallon	270,000	Steel	Powder Epoxy	Excellent

Pressure Zones

List names, approximate number of connections and population served for each zone:

St Francis Retreat Center has only one pressure zone

Distribution System

Complete the Distribution Data Sheet *(Attachment A4) and* ***attach a detailed map*** *showing the locations and sizes of water distribution mains, storage tanks, wells or other sources, booster pumps and any treatment facilities. All facilities should be labeled with names such as "Well 1".*

Consumer Data

Number of Active Connections: **Metered:** NA **Flat Rate:** NA **Total:** NA

Number of Each: Residential 3 Commercial 4 Industrial ____
Agricultural ____ Other ____

Population: Permanent: 5 Seasonal: ____ Season Dates (*M/D*): Start ____ End ____

Community or Area Served:
Staff and Guests at Retreat Center Only

General description of activities performed at site: *(type of business, residential only, school, etc)*
Retreat Center

Water Use Data

Data Provided for Calendar Year: 2013

	Gallons Produced by Water System	Gallons Purchased from Others	Gallons Sold to Other Utilities
Total Annual	3,466,480	0	0
Maximum Month	418,095	0	0
Maximum Day	27,660	0	0

These figures are based on: Meter Readings ☒ Estimates ☐ Other (Specify) ____

Printed Name: Edward J. DeGroot	Title: Sys. Op.
Signature: Edward J. DeGroot	Date: 9/24/2014

State of California
Drinking Water Field
Operations Branch

Chlorination Data

Department of Public Health
Monterey District

System Name: St. Francis Retreat Center **System No.:** 3500537
Source of Information: St. Francis Retreat
Collected by: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Reason for chlorination (emergency, mandatory, optional): Mandatory
Water Source: Well Water treated (raw/filtered etc.): Filtered
Chlorine demand char: 0.6 mg/L Dosage: 1 mg/L (0.5 GPD)
Point of application: Before and after filtration Mixing, adequate?: yes
Contact time before use: 130 minutes Contact time for residual test: 130 minutes

Water Flow
Variation: 20 GPM How measured Digital Flow Meter

Equipment
Type: Chlorine Metering Pump Systems
Make: Stenner Model: Oxidation: 45MHP10 / Disinfection: 45MHP2
Capacity: 10 GPD Condition: New
Auto. switchover capability? Yes Portable emergency chlorinator available? Yes
Chlorine residual monitored continuously? Yes Low level residual alarm? Yes
At what level of chlorine residual is the alarm activated? 0.4 mg/L
How often are residual analyses conducted? Continuously
Type of residual measured (free or combined): Free or total
Type of residual test used: Colorimetric DPD chemistry

Chemical added (% available chlorine, form):
12.5% Liquid chlorine
Cylinder or crock capacity: 35 gallon
Stock on hand/days supply: One Month Supply

Housing and Safety Features
Housing: Snyder Chemical Feed Station (Double Containment)
Insulation: Double Containment
Heating: None
Locks: Yes
Lighting: Yes
Ventilation: Yes
Leak detector with alarm: No
Switches outside chlorination room: No
Gas mask: Yes
Is an emergency plan of action posted? Yes, it will be

Operation and maintenance
Lapse during changes: No
Ability to make repairs: Yes
How often is the equipment inspected? Monthly
Operations records kept: Yes
Condition of scales: NA

Remarks and deficiencies:

Appendix D
Water Treatment Operator Worksheet

TREATMENT FACILITY CLASSIFICATION WORKSHEET

System Name: ***St. Francis - SWTP at Well 1***

System Number: ***3500537*** ***Date of Evaluation: 10/3/2017***

Source Water — Part 1

- ( ) Ground Water.....2pts
- (•) Surface Water.....5pts

Points: 5

Median Coliform Density — Part 2

- ( ) < 1 per 100ml.....0 pts
- (•) 1 - 100 per 100ml.....2 pts
- ( ) >100 - 1000 per 100ml.....4 pts
- ( ) > 1000 - 10,000 per 100ml.....6 pts
- ( ) > 10,000 per 100 ml.....8 pts

Points: 2

Influent Water Turbidity Level — Part 3

- (•) < 15 NTU.....0 pts
- ( ) 15 - 100 NTU.....2 pts
- ( ) >100 NTU.....5 pts

Points: 0

Influent Water Nitrate and Nitrite — Part 4

- (•) < /= MCL.....0 pts
- ( ) > MCL.....5 pts

Points: 0

Primary Contaminants with MCL's — Part 5

If all contaminants are less than the MCL put "0" here...
or enter the number of Contaminants...

0 Greater than the MCL.....2 pts each

0 5 X the MCL or greater.....5 pts each

Points: 0

S. W. Filtration Treatment — Part 6

- [ ] Conventional, direct, or inline.....15
- [ ] Diatomaceous Earth.....12 pts
- [x] Slow sand, membrane, cartridge, or bag filter.....8
- [ ] Backwash recycled as part of process.....5

Points: 8

Treatment Processes used to reduce Primary MCL's — Part 7

___ # of processes used to reduce contaminants with primary MCL's.....10 pts each

Points: 0

Treatment Processes used to reduce Secondary MCL's — Part 8

1 # of processes used to reduce contaminants with secondary MCL's.....3 pts each

Points: 3

Treatment Processes used for corrosion control or fluoridation — Part 9

0 # of processes for corrosion control and fluoridation.....3 pts each

Points: 0

Disinfection Treatment — Part 10

- [ ] Ozone.....10 pts
- [x] Chlorine and/or chloramine.....10 pts
- [ ] Chlorine dioxide.....10 pts
- [ ] Ultra violet (UV).....7 pts

Points: 10

Disinfection/Oxidation Treatment without Inactivation Credit — Part 11

- [ ] Ozone.....5 pts
- [ ] Chlorine and/or chloramine.....5 pts
- [ ] Chlorine dioxide.....5 pts
- [ ] Ultra violet (UV).....3 pts
- [ ] Other Oxidants.....5 pts

Points: 0

Treatment Processes that alter physical or chemical properties — Part 12

0 # of processes that alter the physical or chemical characteristics of D.W....3 pts each

Points: 0

Treatment Facility Flow — Part 13

1 Flow in MGD, worth 2 points per MGD, up to 50 points. See description for blended water.

Points: 2

The Classification for this Treatment Facility is **T2**

Total Points 30

Calculate | Clear All

<20 pts = T1
20 - 39 pts = T2
40 - 59 pts = T3
60 - 79 pts = T4
>79 pts = T5

Part 2: Median Coliform Density
Revised using coliform data submitted for LT2
LT2 data for Davenport fell under the <100 col./100ml (per Troy Boone email 1/27/2011)

Part 3: Influent Water Turbidity Level
Revised influent turbidity based on Proposed Operations Plan:
O & M Manual, on page 12/56, Table 2: Water Quality, it states a Raw Water Turbidity range of <50 NTU.
(Per Troy Boone email 2/1/2011)

Appendix E
Service Area Map

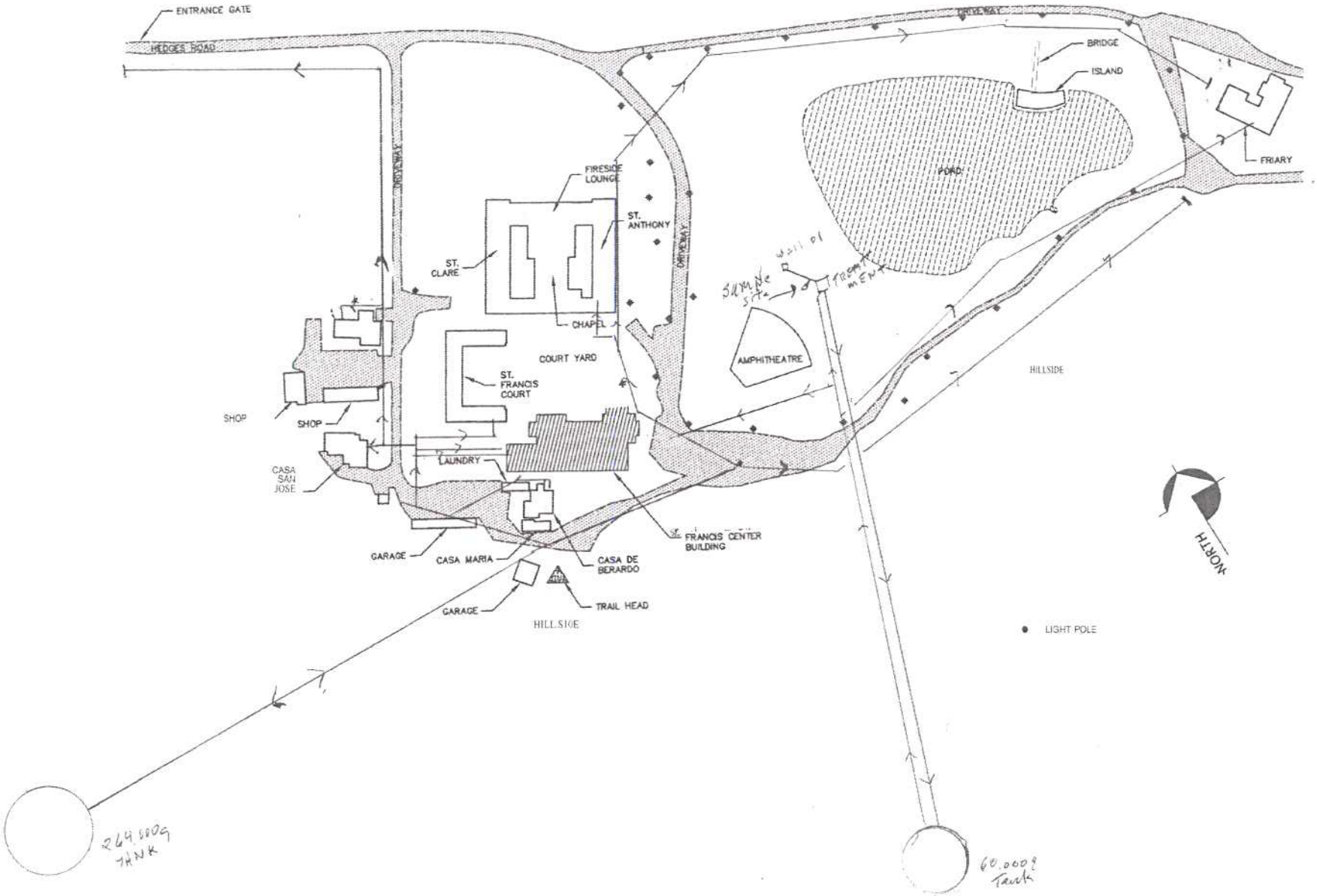
ENTRANCE GATE
HEDGES ROAD
DRIVEWAY
DRIVEWAY
DRIVEWAY
BRIDGE
ISLAND
POND
FRIARY
FIRESIDE LOUNGE
ST. ANTHONY
ST. CLARE
CHAPEL
COURT YARD
ST. FRANCIS COURT
AMPHITHEATRE
HILLSIDE
SHOP
SHOP
CASA SAN JOSE
LAUNDRY
GARAGE
CASA MARIA
CASA DE BERARDO
FRANCIS CENTER BUILDING
GARAGE
TRAIL HEAD
HILLSIDE
NORTH
LIGHT POLE
264,000g TANK
60,000g Tank

13018

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2800625

Mike Fink, Facilities Director
St. Helena Hospital
10 Woodland Road
St. Helena, CA 94574

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2800625

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Fink:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the St. Helena Hospital (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2800625

cc: Napa County Environmental Health Department (email)

2800625/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

St. Helena Hospital
(Public Water System No. 2800625)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2800625/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lori Rodgers, General Manager
Stallion Springs Community Services District
27800 Stallion Springs Dr.
Tehachapi, CA 93561

Dear Ms. Rodgers:

ISSUANCE OF PERMIT AMENDMENT: 1510025-2017PA_SCHOOLS (System No. 1510025)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stallion Springs Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510025-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Al White, Stallion Springs CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stallion Springs Community Services District
(Public Water System No. 1510025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510025-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Tom Zigterman
Stanford University, System No. 4310013
327 Bonair Siding Road
Stanford, CA 94305

Dear Mr. Zigterman:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stanford University water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stanford University
(Public Water System No. *4310013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110004

Ed Schmidt, General Manager
Stinson Beach County Water District
P.O. Box 245
Stinson Beach, CA 94970

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ed Schmidt:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Stinson Beach County Water Dist (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110004

cc: Marin County Environmental Health Department (email)

2110004/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stinson Beach County Water Dist
(Public Water System No. 2110004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Stratford Public Utility District, System No. 1610006
P.O. Box 85
Stratford, CA 93266

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stratford Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stratford Public Utility District
(Public Water System No. *1610006*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adrian Ordonez, General Manager
Strathmore Public Utility District, System No. 5410012
P.O. Box 425
Strathmore, CA 93267

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Adrian Ordonez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Strathmore Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Strathmore Public Utility District
(Public Water System No. *5410012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

THEO PROVENCIO
PRESIDENT
STRICKLAND ACRES, System No. 5602117
4952 Joan Way
OXNARD, CA 93036

Dear: THEO PROVENCIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the STRICKLAND ACRES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

STRICKLAND ACRES
(Public Water System No. *5602117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

553. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

554. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

555. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

556. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

557. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

558. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

559. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

560. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

622. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

623. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

624. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

625. The water system may stop lead sampling at a school if:

qqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttt. If requested in writing by the school's authorized school representative.

626. The water system is responsible for the following costs:

iiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

627. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

628. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

629. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiiiiiiii. The date of the request;

jjjjjjjjjjjjj. The date of the initial meeting;

kkkkkkkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

llllllllllllll. The date of initial lead sampling and all repeat samples.

630. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Covina Knolls
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910200 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Covina Knolls water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910200 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910200 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Covina Knolls

Los Angeles County
System No. 1910200

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Covina Knolls
Public Water System No. *1910200*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Glendora
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910046 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Glendora water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910046 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910046 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Glendora

Los Angeles County
System No. 1910046

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Glendora
Public Water System No. *1910046*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-La Mirada
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910059 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-La Mirada water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910059 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910059 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-La Mirada

Los Angeles County
System No. 1910059

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-La Mirada
Public Water System No. *1910059*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Reich
QA Manager
Suburban Water Systems-San Jose
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear Kenneth Reich:

System No: 1910205 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-San Jose water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910205 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910205 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-San Jose

Los Angeles County
System No. 1910205

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-San Jose
Public Water System No. *1910205*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Whittier
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910174 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Whittier water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Whittier

Los Angeles County
System No. 1910174

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Bcc: Copy of Permit - 1910174 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910174 Permit No: 2017PA_SCHOOLS 20170117

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Whittier
Public Water System No. *1910174*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810005

Cary Keaten
General Manager
Suisun-Solano Water Authority
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suisun-Solano Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suisun-Solano Water Authority
(Public Water System No. *CA4810005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Celeste Perez
Secretary
Sultana CSD, System No. 5400824
P.O. Box 158
Sultana, CA 93666

Dear: Celeste Perez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sultana CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sultana CSD
(Public Water System No. 5400824)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUMNER PECK RANCH
Public Water System No. *1009232*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_083**
EFFECTIVE DATE**: January 17, 2017**

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Sunny Mesa Water System, System No. 2700773
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunny Mesa Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNY MESA WATER SYSTEM
(Public Water System No. *2700773*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ken Tcheng
General Manager
Sunny Slope Water Co.
1040 El Campo Drive
Pasadena, CA 91107

Dear Ken Tcheng:

System No: 1910157 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunny Slope Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910157 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910157 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Sunny Slope Water Co.

Los Angeles County
System No. 1910157

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sunny Slope Water Co.
Public Water System No. *1910157*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNYSIDE CONVALESCENT HOSP
Public Water System No. *1000366*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_048**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donald Ridenhour, General Manager
Sunnyslope County Water District, System No. 3510003
3570 Airline Highway
Hollister, CA. 95023

Dear Mr. Ridenhour:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunnyslope County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNYSLOPE COUNTY WATER DISTRICT
(Public Water System No. *3510003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

bbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

357. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

358. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

359. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooo. The date of the request;

pppppppp. The date of the initial meeting;

qqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrr. The date of initial lead sampling and all repeat samples.

360. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Russell Broyles
President
Sunrise Mutual Water Co., System No. 5400881
P.O. Box 492
Visalia, CA 93279

Dear: Russell Broyles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunrise Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sunrise Mutual Water Co.
(Public Water System No. 5400881)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNSET WEST COMMUNITY LLC
Public Water System No. *1000378*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_051**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Danelle Stylos
Director
SUTTER CO. WWD#1 (ROBBINS), System No. 5100107
1130 Civic Center Blvd. Suite A
YUBA CITY, CA 95993

Dear : Danelle Stylos

ISSUANCE OF PERMIT AMENDMENT 010293P51002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SUTTER CO. WWD#1 (ROBBINS) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

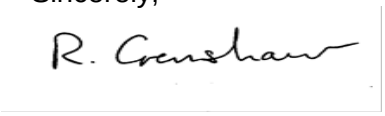

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P51002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUTTER CO. WWD#1 (ROBBINS)
(Public Water System No. *5100107*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P51002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Geri Goetzinger
General Manager
SUTTER COMMUNITY S.D., System No. 5110007
P.O. BOX 710
SUTTER, CA 95982

Dear : Geri Goetzinger

ISSUANCE OF PERMIT AMENDMENT 010293P002A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SUTTER COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

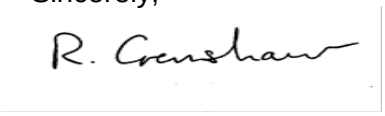

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P002A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUTTER COMMUNITY S.D.
(Public Water System No. *5110007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P002A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

James Smyth
General Manager
Sweetwater Authority, System No. 3710025
PO BOX 2328
Chula Vista, CA 91912

Dear James Smyth:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sweetwater Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sweetwater Authority
(Public Water System No. *3710025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910028

Stephen Mack, General Manager
Sweetwater Springs CWD - Monte Rio
P.O. Box 48
Guerneville, CA 95446

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910028

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Stephen Mack:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sweetwater Springs CWD - Monte Rio (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910028

cc: Kevin Gilman, Field Manager, P.O. Box 48, Guerneville, CA 95446
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sweetwater Springs CWD - Monte Rio
(Public Water System No. 4910028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910028/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tahoe City PUD - Main
(Public Water System No. 3110010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water. Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically

found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT

Issued To

Tahoe City PUD - Timberland
Public Water System # 3100029

By
Placer County Environmental Health Division

ORIGINAL PERMIT NO. 291 **DATE OF ISSUE:** January 3, 2018

PERMIT AMENDMENT NO. 2017PA-SCHOOLS **EFFECTIVE DATE:** August 16, 2017

WHEREAS:

1. Placer County Environmental Health (PCEH) has delegated authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

2. Placer County Environmental Health "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [PCEH] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

3. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

4. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

5. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

6. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

7. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The State Water Resources Control Board (SWRCB) is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

8. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

9. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: Placer County Environmental Health hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by PCEH.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to PCEH OR DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

Danielle Pohlman

_____ **Date: 01/03/18**

Danielle Pohlman
Registered Environmental Health Specialist
Placer County Environmental Health Division

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - TANGLEWOOD, System No. 4210021
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - TANGLEWOOD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - TANGLEWOOD

(Public Water System No. *4210021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

361. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

362. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

363. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

364. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

365. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

366. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

367. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

368. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

406. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

407. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

408. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

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ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

409. The water system may stop lead sampling at a school if:

yyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbb. If requested in writing by the school's authorized school representative.

410. The water system is responsible for the following costs:

mmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

411. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

412. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

413. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

sssssssss. The date of the request;

ttttttttt. The date of the initial meeting;

uuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvv. The date of initial lead sampling and all repeat samples.

414. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jeff Pape
General Manager
Temescal Valley Water District, System No. 3310074
22646 Temescal Canyon Rd.
Corona, CA 92883

Dear Jeff Pape:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Temescal Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Temescal Valley Water District
(Public Water System No. 3310074)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEFF BRILTZ
GENERAL MANAGER
TEMPLETON CSD, System No. 4010019
PO Box 780
TEMPLETON, CA 93465

Dear: JEFF BRILTZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TEMPLETON CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TEMPLETON CSD
(Public Water System No. *4010019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

161. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

162. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

163. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

164. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

165. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

166. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

167. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

168. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

181. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

182. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

183. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

184. The water system may stop lead sampling at a school if:

cccc. All initial samples are less than or equal to 15 ppb; or

dddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffff. If requested in writing by the school's authorized school representative.

185. The water system is responsible for the following costs:

oo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

186. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

187. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

188. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxx. The date of the request;

yyyy. The date of the initial meeting;

zzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaa. The date of initial lead sampling and all repeat samples.

189. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sean Geivet, Manager
Terra Bella Irrigation District, System No. 5410038
24790 Avenue 95
Terra Bella, CA 93270

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sean Geivet:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Terra Bella Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Terra Bella Irrigation District
(Public Water System No. *5410038*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TERRA LINDA FARMS
Public Water System No. *1009222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_082**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Taylor, President
Terrace Water Company
System No. 3610048
925 Jackson Street
Colton, CA 92324

Dear: Chris Taylor,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Terrace Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Terrace Water Company
(Public Water System No. *3610048*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Galaviz
Board President
Teviston CSD, System No. 5400641
P.O. BOX T
Pixley, CA 93256

Dear: Frank Galaviz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Teviston CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Teviston CSD
(Public Water System No. 5400641)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeri Gagne
Onsite Manager
The Lakes Association, System No. 5400880
1605 N. Tamarack
Visalia, CA 93291

Dear: Jeri Gagne

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the The Lakes Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

The Lakes Association
(Public Water System No. 5400880)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Jayme Boucher
Manager
THERMALITO WATER & SEWER DISTRICT, System No. 410008
410 GRAND AVENUE
OROVILLE, CA 95965

Dear : Mr. Jayme Boucher

ISSUANCE OF PERMIT AMENDMENT 75-015A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the THERMALITO WATER & SEWER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

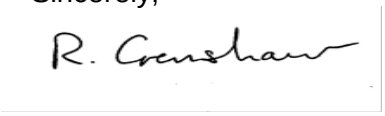

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 75-015A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THERMALITO WATER & SEWER DISTRICT
(Public Water System No. *410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***75-015A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

JAY SPURGIN
PUBLIC WORKS DIRECTOR
THOUSAND OAKS WATER DEPT, System No. 5610020
2100 Thousand Oaks Boulevard
THOUSAND OAKS, CA 91362

Dear: JAY SPURGIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the THOUSAND OAKS WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THOUSAND OAKS WATER DEPT
(Public Water System No. *5610020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

713. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

714. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

715. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

716. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

717. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

718. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

719. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

720. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

802. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

803. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

804. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

805. The water system may stop lead sampling at a school if:

ssssssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

806. The water system is responsible for the following costs:

wwwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

807. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

808. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

809. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddddddddddddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeeeeeeeeeeee. The date of the request;

fffffffffffffffff. The date of the initial meeting;

ggggggggggggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhhhhhhhhhhh. The date of initial lead sampling and all repeat samples.

810. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THREE PALMS MOBILEHOME PARK
Public Water System No. *1000299*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_044**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roy Shull, General Manager
Thunderbird CWD
System No. 3600306
P.O. Box 1105
Apple Valley, CA 92307

Dear: Roy Shull,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Thunderbird CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Thunderbird CWD
(Public Water System No. *3600306*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

FRANCES FITTING
SECRETARY/TREASURER
TICO MUTUAL WATER CO, System No. 5601122
1790 South Rice Road
OJAI, CA 0

Dear: FRANCES FITTING

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TICO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

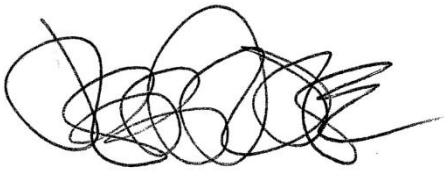

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TICO MUTUAL WATER CO
(Public Water System No. *5601122*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

449. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

450. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

451. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

452. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

453. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

454. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

455. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

456. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

505. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

506. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

507. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

508. The water system may stop lead sampling at a school if:

qqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttttttt. If requested in writing by the school's authorized school representative.

509. The water system is responsible for the following costs:

iiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

510. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

511. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

512. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvv. The date of the request;

wwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

513. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Johnny Price, Superintendent
Tipton Community Services District, System No. 5410014
P.O. Box 266
Tipton, CA 93272

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Johnny Price:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tipton Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tipton Community Services District
(Public Water System No. *5410014*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Reuben Salazar
President
Tooleville Mutual Non Profit Water Ass., System No. 5400567
2313 E. Morgan
Exeter, CA 93221

Dear: Reuben Salazar

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tooleville Mutual Non Profit Water Ass. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tooleville Mutual Non Profit Water Ass.
(Public Water System No. 5400567)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alan Berndt
Water Superintendent
Torrance-City, Water Dept.
20500 Madrona Avenue
Torrance, CA 90503

Dear Alan Berndt:

System No. 1910213- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Torrance-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Torrance-City, Water Dept.
Public Water System No. *1910213*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710009

Virgil Koehne
Water Manager
Town of Discovery Bay
1800 Willow Lake Road
Discovery Bay, CA 94505-9376

Dear Virgil Koehne:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Town of Discovery Bay water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Town of Discovery Bay
(Public Water System No. *CA0710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110012

Andrew DeGraca
Water Quality Division Director
SFPUC - Town of Sunol
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC - Town of Sunol water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - Town of Sunol
(Public Water System No. *CA0110012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910017

Toni Bertolero, Public Works Director
Windsor, Town Of
P.O. Box 100
Windsor, CA 95492

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910017

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Toni Bertolero:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Windsor, Town Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910017

cc: Richard Bartlett, P.O. Box 100, Windsor, CA 95492
Michael Cave, P.O. Box 100, Windsor, CA 95492
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Windsor, Town Of
(Public Water System No. 4910017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910017/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810007

Don Moore, Utility Ops Supervisor
Town Of Yountville
6550 Yount Street
Yountville, CA 94599

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Don Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Town Of Yountville (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810007

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Town Of Yountville
(Public Water System No. 2810007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810007/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Hector Ruiz
General Manager
Trabuco Canyon Water District, System No. 3010094
32003 Dove Canyon Dr
Trabuco Canyon, CA 92679

Dear Mr. Ruiz:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Trabuco Canyon Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Trabuco Canyon Water District
(Public Water System No. 3010094)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joleen Palmer
Secretary
Tract 92 CSD, System No. 5400903
P.O. Box 276
Farmersville, CA 93223

Dear: Joleen Palmer

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tract 92 CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 92 CSD
(Public Water System No. 5400903)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

George Perez
CEO/President
Tract 180 Mutual Water Co.
4544 Florence Avenue
Cudahy, CA 90201

Dear George Perez:

System No: 1910159 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tract 180 Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910159 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910159 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Tract 180 Mutual Water Co.

Los Angeles County
System No. 1910159

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 180 Mutual Water Co.
Public Water System No. *1910159*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Martin Susnir
General Manager
Tract 349 Mutual Water Co.
4630 Santa Ana Street
Cudahy, CA 90201

Dear Martin Susnir:

System No: 1910160 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tract 349 Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910160 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910160 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Tract 349 Mutual Water Co.

Los Angeles County
System No. 1910160

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 349 Mutual Water Co.
Public Water System No. *1910160*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRACT 1199 WATER SYSTEM
Public Water System No. *1000075*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_025**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRANQUILLITY IRRIGATION DISTRICT
Public Water System No. *1010030*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_100**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017 PWS No. CA4810701

Edison Y. Kim
Flt Chief, Bioenv Eng.
Travis Air Force Base - Distribution
106 Bodin Circle, Bldg. 791
Travis AFB, CA 94535-1800

Dear Edison Y. Kim:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Travis Air Force Base - Distribution water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Travis Air Force Base - Distribution
(Public Water System No. *CA4810701*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Raymond Creech, General Manager
Tres Pinos CWD, System No. 3500509
PO Box 1001
Tres Pinos, CA. 95075

Dear Mr. Creech:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tres Pinos CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRES PINOS CWD
(Public Water System No. *3500509*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jan McKinley
President
Triple R Mutual Water Co., System No. 5400670
16521 Mustang Drive
Springville, CA 93265

Dear: Jan McKinley

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Triple R Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Triple R Mutual Water Co.
(Public Water System No. 5400670)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 2910003

Michael Holley
General Manager
Truckee-Donner Public Utility District - Main, System No. 2910003
11570 Donner Pass Road
Truckee, CA 96161

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Truckee-Donner Public Utility District - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910003

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Truckee-Donner Public Utility District - Main
Public Water System
(Public Water System No. 2910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510013
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - COLUMBIA WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - COLUMBIA WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - COLUMBIA WATER SYSTEM
(Public Water System No.: *5510013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

305. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

306. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

307. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

308. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

309. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

310. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

311. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

312. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

343. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

344. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

345. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

346. The water system may stop lead sampling at a school if:

wwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzz. If requested in writing by the school's authorized school representative.

347. The water system is responsible for the following costs:

yyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

348. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

349. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

350. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjj. The date of the request;

kkkkkkkk. The date of the initial meeting;

llllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmm. The date of initial lead sampling and all repeat samples.

351. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

609. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
610. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
611. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
612. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
613. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
614. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
615. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

616. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
617. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
618. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
619. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
620. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
621. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
622. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
623. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
624. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

267. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
268. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
269. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

270. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
271. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
272. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
273. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

191. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
192. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
193. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
194. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
195. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
119. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
120. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

121. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

267. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
268. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
269. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
270. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
271. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
272. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
273. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510003
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - TUOLUMNE WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - TUOLUMNE WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - TUOLUMNE WATER SYSTEM
(Public Water System No.: *5510003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

241. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

242. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

243. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

244. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

245. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

246. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

247. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

248. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

271. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

272. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

273. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

274. The water system may stop lead sampling at a school if:

qqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttt. If requested in writing by the school's authorized school representative.

275. The water system is responsible for the following costs:

iii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

276. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

277. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

278. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvv. The date of the request;

wwwwww. The date of the initial meeting;

xxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyy. The date of initial lead sampling and all repeat samples.

279. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

481. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
482. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
483. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
484. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
485. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
486. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
487. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

488. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
489. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
490. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
491. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
492. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
493. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
494. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
495. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
496. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

211. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
212. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
213. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

214. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
215. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
216. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
217. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

151. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
152. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
153. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
154. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
155. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
95. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
96. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

97. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

211. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
212. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
213. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
214. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
215. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
216. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
217. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510012
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - UPPER BASIN WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - UPPER BASIN WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - UPPER BASIN WATER SYSTEM
(Public Water System No.: *5510012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

297. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

298. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

299. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

300. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

301. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

302. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

303. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

304. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

334. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

335. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

336. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

337. The water system may stop lead sampling at a school if:

ssssss. All initial samples are less than or equal to 15 ppb; or

tttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvv. If requested in writing by the school's authorized school representative.

338. The water system is responsible for the following costs:

www. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

339. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

340. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

341. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeee. The date of the request;

fffffff. The date of the initial meeting;

ggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhh. The date of initial lead sampling and all repeat samples.

342. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

593. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
594. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
595. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
596. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
597. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
598. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
599. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

600. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
601. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
602. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
603. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
604. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
605. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
606. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
607. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
608. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

260. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
261. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
262. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

263. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
264. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
265. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
266. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

186. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
187. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
188. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
189. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
190. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
116. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
117. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

118. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

260. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
261. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
262. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
263. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
264. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
265. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
266. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510001
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - SONORA/JAMESTOWN WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - SONORA/JAMESTOWN WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - SONORA/JAMESTOWN WATER SYSTEM
(Public Water System No.: *5510001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

233. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

234. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

235. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

236. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

237. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

238. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

239. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

240. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

262. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

263. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

264. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

265. The water system may stop lead sampling at a school if:

mmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppp. If requested in writing by the school's authorized school representative.

266. The water system is responsible for the following costs:

ggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

267. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

268. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

269. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqq. The date of the request;

rrrrrr. The date of the initial meeting;

ssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttt. The date of initial lead sampling and all repeat samples.

270. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

465. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
466. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
467. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
468. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
469. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
470. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
471. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

472. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
473. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
474. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
475. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
476. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
477. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
478. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
479. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
480. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

204. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
205. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
206. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

207. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
208. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
209. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
210. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

146. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
147. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
148. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
149. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
150. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
92. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
93. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

94. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

204. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
205. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
206. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
207. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
208. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
209. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
210. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510005
January 17, 2017

TOM TROTT, GENERAL MANAGER
TWAIN HARTE COMMUNITY SERVICES DISTRICT
P.O. BOX 649
TWAIN HARTE, CA 95383

Dear TOM TROTT,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TWAIN HARTE COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TWAIN HARTE COMMUNITY SERVICES DISTRICT
(Public Water System No.: *5510005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

257. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

258. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

259. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

260. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

261. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

262. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

263. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

264. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

289. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

290. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

291. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

292. The water system may stop lead sampling at a school if:

yyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbb. If requested in writing by the school's authorized school representative.

293. The water system is responsible for the following costs:

mmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

294. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

295. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

296. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffff. The date of the request;

ggggggg. The date of the initial meeting;

hhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiii. The date of initial lead sampling and all repeat samples.

297. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

513. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
514. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
515. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
516. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
517. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
518. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
519. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

520. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
521. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
522. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
523. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
524. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
525. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
526. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
527. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
528. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

225. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
226. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
227. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

228. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
229. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
230. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
231. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

161. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
162. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
163. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
164. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
165. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
101. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
102. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

103. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

225. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
226. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
227. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
228. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
229. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
230. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
231. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ray Kolisz, Operations Manager
Twentynine Palms Water District
System No. 3610049
P. O. Box 1735
Twentynine Palms, CA 92277

Dear: Ray Kolisz,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Twentynine Palms Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Twentynine Palms Water District
(Public Water System No. *3610049*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910701

Mark Walton, Water System Manager
U.S. Coast Guard Training Center
599 Tomales Road - BLDG 150
Petaluma, CA 94952

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910701

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mark Walton:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the U.S. Coast Guard Training Center (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910701

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

U.S. Coast Guard Training Center
(Public Water System No. 4910701)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910701/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Eltringham
District Manager
Union Public Utility District, System No. 0510001
339 Main Street
Murphys, CA 95247

Dear: Mr. Eltringham,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Union Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Union Public Utility District
(Public Water System No. 0510001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

January 17, 2017

MIKE SOLOMON
GENERAL MANAGER
UNITED WTR CONS DIST, System No. 5610046
106 NORTH EIGHTH STREET
SANTA PAULA, CA 93060

Dear: MIKE SOLOMON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the UNITED WTR CONS DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

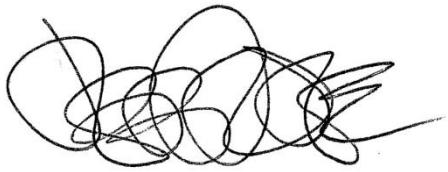

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

UNITED WTR CONS DIST
(Public Water System No. *5610046*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

793. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

794. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

795. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

796. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

797. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

798. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

799. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

800. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

892. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

893. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

894. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

895. The water system may stop lead sampling at a school if:

gggggggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjjjjjj. If requested in writing by the school's authorized school representative.

896. The water system is responsible for the following costs:

qqqqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

897. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

898. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

899. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbbbbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

cccccccccccccccccccc. The date of the request;

ddddddddddddddddddddd. The date of the initial meeting;

eeeeeeeeeeeeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

ffffffffffffffffffff. The date of initial lead sampling and all repeat samples.

900. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710009

Rachelle Henry, Watermaster
Upper Lake County Water District
P.O. Box 847
Upper Lake, CA 95485

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rachelle Henry:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Upper Lake County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710009

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Upper Lake County Water District
(Public Water System No. 1710009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710009/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Muhammad Bari, Director Public Works
Us Army - Fort Irwin
System No. 3610705
P.O. Box 105085, Bldg. 602
Fort Irwin, CA 92310

Dear: Muhammad Bari,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Us Army - Fort Irwin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Us Army - Fort Irwin
(Public Water System No. *3610705*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 4/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Elliott, Water Resource Manager
USMC - 29 Palms
System No. 3610703
Bldg. 1418 MCAGCC P.O. Box 788110
Twenty Nine Palms, CA 92278

Dear: Chris Elliott,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the USMC - 29 Palms water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

USMC - 29 Palms
(Public Water System No. *3610703*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 4/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jason Golumbfskie-Jones
Environmental Director
USN San Clemente Island, System No. 3710707
Env. Div. Naval Base Coronado PWO Bldg 3
PO Box 357088
San Diego, CA 92135-7088

Dear Jason Golumbfskie-Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the USN San Clemente Island water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

USN San Clemente Island
(Public Water System No. *3710707*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dave Michalko
General Manager
Valencia Heights Water Co.
3009 E. Virginia Avenue
West Covina, CA 91791

Dear: Dave Michalko

System No: 1910163 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valencia Heights Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910163 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910163 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valencia Heights Water Co.
Public Water System No. *1910163*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Petersen
General Manager
Valencia Water Co.
24631 Avenue Rockefeller
Valencia, CA 91355

Dear Kenneth Petersen:

System No: 1910240 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valencia Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910240 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910240 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valencia Water Co.

Los Angeles County
System No. 1910240

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Glenn Pruim
General Manager
Vallecitos Water District, System No. 3710002
201 Vallecitos de Oro
San Marcos, CA 92069

Dear Glenn Pruim:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vallecitos Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vallecitos Water District
(Public Water System No. *3710002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Gary Arant
General Manager
Valley Center Municipal Water District, System No. 3710026
P.O. BOX 67
Valley Center, CA 92082

Dear Gary Arant:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Center Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Center Municipal Water District
(Public Water System No. *3710026*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tara Robinson
Water Quality Specialist
Valley County Water Dist.
14521 Ramona Blvd.
Baldwin Park, CA 91706

Dear Tara Robinson:

System No: 1910009 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley County Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910009 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910009 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley County Water Dist.

Los Angeles County
System No. 1910009

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley County Water Dist.
Public Water System No. *1910009*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Smith, General Manager
Valley Of Enchantment MWC
System No. 3610051
P. O. Box 6510
Crestline, CA 92325

Dear: Brian Smith,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Of Enchantment MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Of Enchantment MWC
(Public Water System No. *3610051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910013

Daniel Muelrath, General Manager
Valley Of The Moon Water District
P.O. Box 280
El Verano, CA 95433

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Daniel Muelrath:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Valley Of The Moon Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910013

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Of The Moon Water District
(Public Water System No. 4910013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Fischer
General Manager
Valley Springs Public Utility District, System No. 0510010
P.O. Box 284
Valley Springs, CA 95252

Dear: Mr. Fischer,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Springs Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Springs Public Utility District
(Public Water System No. 0510010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

January 17, 2017

Sukie Madrid
Manager
Valley View Mutual Water Co.
13730 East Los Angeles Street
Baldwin Park, CA 91706

Dear Sukie Madrid:

System No: 1910165 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley View Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910165 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910165 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley View Mutual Water Co.

Los Angeles County
System No. 1910165

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley View Mutual Water Co.
Public Water System No. *1910165*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Robert Kavert, Pres., Board Of Dir
Valley View Park MWC
System No. 3610046
P.O. Box 301
Crestline, CA 92325

Dear: Robert Kavert,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley View Park MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley View Park MWC
(Public Water System No. *3610046*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bob Fan
General Manager
Valley Water Co.
4524 Hampton Road
La Canada Flintridge, CA 91011

Dear Bob Fan:

System No: 1910166 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910166 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910166 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley Water Co.

Los Angeles County
System No. 1910166

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Water Co.
Public Water System No. *1910166*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOSEPH BARGET
GENERAL MANAGER
VANDENBERG VILLAGE COMM. SERV. DIST., System No. 4210017
3757 CONSTELLATION ROAD
LOMPOC, CA 93436

Dear: JOSEPH BARGET

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VANDENBERG VILLAGE COMM. SERV. DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VANDENBERG VILLAGE COMM. SERV. DIST.
(Public Water System No. *4210017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

329. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

330. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

331. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

332. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

333. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

334. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

335. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

336. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

370. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

371. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

372. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

373. The water system may stop lead sampling at a school if:

iiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllll. If requested in writing by the school's authorized school representative.

374. The water system is responsible for the following costs:

eeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

375. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

376. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

377. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyy. The date of the request;

zzzzzzzz. The date of the initial meeting;

aaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbb. The date of initial lead sampling and all repeat samples.

378. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Van Grayer, General Manager
Vaughn Water Company, Inc., System No. 1510029
10014 Glenn Street
Bakersfield, CA 93312

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Van Grayer:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vaughn Water Company, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vaughn Water Company, Inc.
(Public Water System No. *1510029*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 1 - MOORPARK, System No. 5610018
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 1 - MOORPARK water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 1 - MOORPARK
(Public Water System No. *5610018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

697. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

698. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

699. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

700. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

701. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

702. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

703. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

704. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

784. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

785. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

786. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

787. The water system may stop lead sampling at a school if:

kkkkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

788. The water system is responsible for the following costs:

sssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

789. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

790. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

791. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttttttttttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuuuuuuuuuuu. The date of the request;

vvvvvvvvvvvvvvvv. The date of the initial meeting;

wwwwwwwwwwwwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxxxxxxxxxxxx. The date of initial lead sampling and all repeat samples.

792. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 38 - LAKE SHERWOOD, System No. 5610069
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 38 - LAKE SHERWOOD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 38 - LAKE SHERWOOD

(Public Water System No. *5610069*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

849. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

850. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

851. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

852. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

853. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

854. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

855. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

856. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

955. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

956. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

957. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

958. The water system may stop lead sampling at a school if:

iiiiiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllllllllllllll. If requested in writing by the school's authorized school representative.

959. The water system is responsible for the following costs:

eeeeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

960. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

961. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

962. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkkkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

lllllllllllllllllllll. The date of the request;

mmmmmmmmmmmmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooooooooooo. The date of initial lead sampling and all repeat samples.

963. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 17 - BELL CANYON, System No. 5610003
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 17 - BELL CANYON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

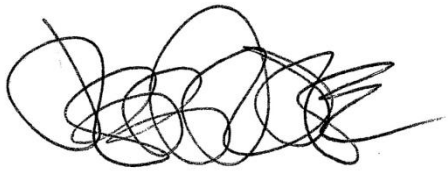

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 17 - BELL CANYON
(Public Water System No. *5610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

601. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

602. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

603. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

604. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

605. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

606. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

607. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

608. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

676. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

677. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

678. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

679. The water system may stop lead sampling at a school if:

oooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

680. The water system is responsible for the following costs:

uuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

681. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

682. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

683. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmmmmmmm. The date of the request;

nnnnnnnnnnnnnnn. The date of the initial meeting;

oooooooooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppppppppp. The date of initial lead sampling and all repeat samples.

684. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 19 - SOMIS, System No. 5610015
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 19 - SOMIS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 19 - SOMIS
(Public Water System No. *5610015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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679. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

680. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

757. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

758. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

759. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

760. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

761. The water system is responsible for the following costs:

mmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

762. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

763. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

764. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffffffffff. The date of the request;

gggggggggggggggg. The date of the initial meeting;

hhhhhhhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiiiiiiii. The date of initial lead sampling and all repeat samples.

765. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BERT RAPP
GENERAL MANAGER
VENTURA RIVER WATER DISTRICT, System No. 5610022
409 Old Baldwin Road
OJAI, CA 93023

Dear: BERT RAPP

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA RIVER WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

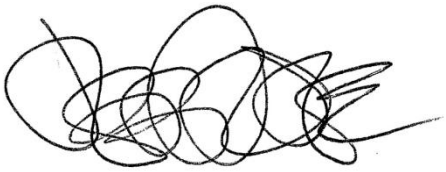

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA RIVER WATER DISTRICT
(Public Water System No. *5610022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

729. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

730. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

731. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

732. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

733. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

734. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

735. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

736. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

820. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

821. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

822. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

823. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddddddddddd. If requested in writing by the school's authorized school representative.

824. The water system is responsible for the following costs:

aaaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

825. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

826. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

827. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnnnnnnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooooooooooooo. The date of the request;

pppppppppppppppppp. The date of the initial meeting;

qqqqqqqqqqqqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrrrrrrrrrrrr. The date of initial lead sampling and all repeat samples.

828. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANA EPSTEIN
GENERAL MANAGER
VENTURA WATER DEPARTMENT, System No. 5610017
PO Box 99
VENTURA, CA 93002

Dear: SHANA EPSTEIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA WATER DEPARTMENT
(Public Water System No. *5610017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

689. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

690. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

691. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

692. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

693. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

694. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

695. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

696. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

775. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

776. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

777. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

778. The water system may stop lead sampling at a school if:

gggggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjjjjj. If requested in writing by the school's authorized school representative.

779. The water system is responsible for the following costs:

qqqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

780. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

781. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

782. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

oooooooooooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

pppppppppppppppp. The date of the request;

qqqqqqqqqqqqqqqq. The date of the initial meeting;

rrrrrrrrrrrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

ssssssssssssssss. The date of initial lead sampling and all repeat samples.

783. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GROVER TOWNSEND
DEPUTY DIRECTOR
VENTURA WWD NO. 8 - SIMI VALLEY, System No. 5610023
2929 TAPO CANYON ROAD
SIMI VALLEY, CA 93063

Dear: GROVER TOWNSEND

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA WWD NO. 8 - SIMI VALLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA WWD NO. 8 - SIMI VALLEY
(Public Water System No. *5610023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

737. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

738. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

739. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

740. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

741. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

742. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

743. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

744. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

829. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

830. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

831. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

832. The water system may stop lead sampling at a school if:

eeeeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

833. The water system is responsible for the following costs:

cccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

834. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

835. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

836. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sssssssssssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttttttttttttt. The date of the request;

uuuuuuuuuuuuuuuuu. The date of the initial meeting;

vvvvvvvvvvvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwwwwwwwwwwwww. The date of initial lead sampling and all repeat samples.

837. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Doug Mathews, Public Works Manager
Victorville Water District
System No. 3610052
P.O. Box 5001
Victorville, CA 0

Dear: Doug Mathews,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Victorville Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Victorville Water District
(Public Water System No. *3610052*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gregory Lockhart
Dixon Water Company, System No. 5400875
P.O. Box 900
Three Rivers, CA 93271

Dear: Gregory Lockhart

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dixon Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dixon Water Company
(Public Water System No. 5400875)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

NANCY OLIVARES
BOOKKEEPER
VINEYARD AVENUE ACRES MWC, System No. 5610029
P.O. BOX 6293
OXNARD, CA 93031

Dear: NANCY OLIVARES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VINEYARD AVENUE ACRES MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VINEYARD AVENUE ACRES MWC
(Public Water System No. *5610029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

753. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

754. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

755. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

756. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

757. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

758. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

759. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

760. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

847. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

848. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

849. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

850. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppppp. If requested in writing by the school's authorized school representative.

851. The water system is responsible for the following costs:

ggggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

852. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

853. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

854. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccccccccccccccccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddddddddddddddddd. The date of the request;

eeeeeeeeeeeeeeeeee. The date of the initial meeting;

ffffffffffffffffff. The date of the sampling plan along with a copy of each sampling plan; and

gggggggggggggggggg. The date of initial lead sampling and all repeat samples.

855. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JIM BURKE
PRESIDENT
VINEYARD AVE ESTATES MWC, System No. 5610056
P.O. BOX 5065
OXNARD, CA 93031

Dear: JIM BURKE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VINEYARD AVE ESTATES MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VINEYARD AVE ESTATES MWC
(Public Water System No. *5610056*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

809. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

810. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

811. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

812. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

813. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

814. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

815. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

816. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

910. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

911. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

912. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

913. The water system may stop lead sampling at a school if:

oooooooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

914. The water system is responsible for the following costs:

uuuuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

915. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

916. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

917. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllllllllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmmmmmmmmmmmm. The date of the request;

nnnnnnnnnnnnnnnnnnn. The date of the initial meeting;

oooooooooooooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppppppppppppp. The date of initial lead sampling and all repeat samples.

918. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Eldon Boone
General Manager
Vista Irrigation District, System No. 3710027
1391 Engineer Street
Vista, CA 92081

Dear Eldon Boone:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vista Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vista Irrigation District
(Public Water System No. *3710027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2400201
January 17, 2017

JOHN LEONARD, GENERAL MANAGER
VOLTA COMMUNITY SD
PO BOX 2406
LOS BANOS, CA 93635

Dear JOHN LEONARD,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VOLTA COMMUNITY SD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VOLTA COMMUNITY SD
(Public Water System No.: *2400201*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

97. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

98. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

99. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

100. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

101. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

102. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

103. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

104. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

109. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

110. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

111. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

112. The water system may stop lead sampling at a school if:

ww. All initial samples are less than or equal to 15 ppb; or

xx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zz. If requested in writing by the school's authorized school representative.

113. The water system is responsible for the following costs:

y. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

z. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

114. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

115. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

116. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjj. The date of the request;

kkk. The date of the initial meeting;

lll. The date of the sampling plan along with a copy of each sampling plan; and

mmm. The date of initial lead sampling and all repeat samples.

117. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

193. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
194. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
195. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
196. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
197. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
198. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
199. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

200. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
201. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
202. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
203. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
204. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
205. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
206. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
207. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
208. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

85. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
86. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
87. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

88. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
89. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
90. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
91. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

61. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
62. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
63. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
64. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
65. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
41. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
42. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

43. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

85. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
86. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
87. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
88. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
89. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
90. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
91. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Gomez
Co Manager
Walnut Park Mutual Water Co.
2460 E. Florence Avenue
Huntington Park, CA 90255

Dear Mike Gomez:

System No: 1910169 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Walnut Park Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910169 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910169 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Walnut Park Mutual Water Co.

Los Angeles County
System No. 1910169

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Walnut Park Mutual Water Co.
Public Water System No. *1910169*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Holmes
General Manager
Walnut Valley Water District
271 S. Brea Canyon Road
Walnut, CA 91789

Dear: Michael Holmes

System No: 1910234 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Walnut Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910234 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910234 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Walnut Valley Water District
Public Water System No. *1910234*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Pat Daugherty
Manager
Warner Springs Estates, System No. 3702354
35109 HWY 79
Warner Springs, CA 92086

Dear Pat Daugherty:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Warner Springs Estates water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Warner Springs Estates
(Public Water System No. *3702354*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GLEN PACE
PRESIDENT
WARRING WATER SERVICE INC, System No. 5610021
P.O. BOX 189
PIRU, CA 93040

Dear: GLEN PACE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WARRING WATER SERVICE INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

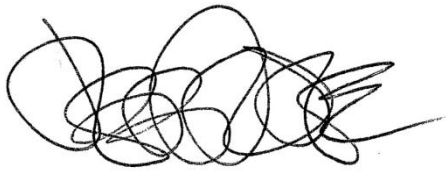

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WARRING WATER SERVICE INC
(Public Water System No. *5610021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

721. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

722. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

723. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

724. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

725. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

726. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

727. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

728. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

811. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

812. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

813. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

814. The water system may stop lead sampling at a school if:

wwwwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

815. The water system is responsible for the following costs:

yyyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

816. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

817. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

818. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiiiiiiiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjjjjjjjjjj. The date of the request;

kkkkkkkkkkkkkkkkkk. The date of the initial meeting;

llllllllllllllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmmmmmmmmmmmm. The date of initial lead sampling and all repeat samples.

819. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT
950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Board of Directors
Washington Water District Water System, System No. 2900532
P.O. Box #34
Washington, CA. 95986

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-523

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Washington Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Paul Rose (email)
Water Operator

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Washington Water District
for
Washington Water District Water System
(Public Water System No.2900523)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-523** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th, 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Morgan
Water and Wastewater Supervisor
City of Waterford - Hickman, System No. 5010026
P.O. Box 199
Waterford, CA 95386

Dear Ms. Morgan,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Waterford - Hickman water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Waterford – Hickman
(Public Water System No. 5010026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an Initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

FRANK BROMMENSCHENKEL
CONSULTANT
WATERS ROAD DOMESTIC USERS GROUP, System No. 5602132
134 DAVIS STREET
SANTA PAULA, CA 93060

Dear: FRANK BROMMENSCHENKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WATERS ROAD DOMESTIC USERS GROUP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WATERS ROAD DOMESTIC USERS GROUP
(Public Water System No. *5602132*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

569. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

570. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

571. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

572. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

573. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

574. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

575. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

576. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

640. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

641. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

642. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

643. The water system may stop lead sampling at a school if:

yyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

644. The water system is responsible for the following costs:

mmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

645. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

646. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

647. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssssssssssssss. The date of the request;

tttttttttttttt. The date of the initial meeting;

uuuuuuuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvvvvvvv. The date of initial lead sampling and all repeat samples.

648. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Weimar Water Company
(Public Water System No. 3110035)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Harry O. Starkey, General Manager
West Kern Water District, System No. 1510022
P.O. Box 1105
Taft, CA 93268

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Harry O. Starkey:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the West Kern Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West Kern Water District
(Public Water System No. *1510022*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Bob Ukestad
West San Martin Water Works, Inc., System No. 4300543
1005 Highland Avenue
San Martin, CA 95046

Dear Mr. Ukestad:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West San Martin Water Works, Inc.
(Public Water System No. *4300543*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Matthew Litchfield, Asst. General Manager
West Valley Water District
System No. 3610004
P.O. Box 920
Rialto, CA 92377

Dear: Matthew Litchfield,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the West Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West Valley Water District
(Public Water System No. *3610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Darryl Barrow
Westborough County Water District, System No. 4110027
P.O. Box 2747
South San Francisco, CA 94083

Dear Mr. Barrow:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Westborough County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westborough County Water District
(Public Water System No. *4110027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Brown, Manager
Western Heights Water Company
System No. 3610053
32352 Avenue D
Yucaipa, CA 92399

Dear: William Brown,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Heights Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western Heights Water Company
(Public Water System No. *3610053*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal Water District, System No. 3310049
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western Municipal Water District
(Public Water System No. 3310049)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal WD – Murrieta Division, System No. 3310036
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District – Murrieta Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western MWD – Murrieta Division
(Public Water System No. 3310036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal WD – I.D. A – Rainbow, System No. 3310076
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District – I.D. A – Rainbow water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western MWD – I.D. A – Rainbow
(Public Water System No. 3310076)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ramiro Barajas
Public Works Supervisor
City of Westmorland, System No. 1310008
P.O. Box 699
Westmorland, CA 92281

Dear Ramiro Barajas:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Westmorland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Westmorland
(Public Water System No. *1310008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300730

Josh Azevedo, District Manager
Westport County Water District
P.O. Box 55
Westport, CA 95488

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300730

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Josh Azevedo:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Westport County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300730

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westport County Water District
(Public Water System No. 2300730)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300730/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WESTSIDE HARVESTING
Public Water System No. *1009214*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_081**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westwood C.S.D.
(Public Water System No. 1810002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

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   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

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k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

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   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

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8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Eddie Martin
Williams Mutual Water Co., System No. 5400718
P.O. Box 1073
Porterville, CA 93258

Dear: Eddie Martin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Williams Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Williams Mutual Water Co.
(Public Water System No. 5400718)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

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iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

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l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310005

David Redding, General Manager, Operator
Willow County Water District
151 Laws Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Redding:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Willow County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310005

cc: Sharon Anderson, Office Manager, 151 Laws Avenue, Ukiah, CA 95482
Mendocino County Environmental Health Department (email)

2310005/Permit
170117 PA School Cover Letter/EMS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Willow County Water District
(Public Water System No. 2310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410010
January 17, 2017

BRENDA WEY, OFFICE SUPERVISOR
WINTON WATER & SANITARY DIST
P.O. BOX 970
WINTON, CA 95388

Dear BRENDA WEY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WINTON WATER & SANITARY DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WINTON WATER & SANITARY DIST
(Public Water System No.: *2410010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

177. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

178. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

179. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

180. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

181. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

182. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

183. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

184. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

199. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

200. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

201. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

202. The water system may stop lead sampling at a school if:

kkkk. All initial samples are less than or equal to 15 ppb; or

llll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnn. If requested in writing by the school's authorized school representative.

203. The water system is responsible for the following costs:

ss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

204. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

205. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

206. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhh. The date of the request;

iiiii. The date of the initial meeting;

jjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkk. The date of initial lead sampling and all repeat samples.

207. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

353. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
354. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
355. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
356. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
357. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
358. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
359. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

360. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
361. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
362. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
363. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
364. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
365. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
366. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
367. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
368. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

155. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
156. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
157. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

158. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
159. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
160. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
161. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

111. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
112. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
113. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
114. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
115. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
71. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
72. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

73. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

155. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
156. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
157. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
158. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
159. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
160. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
161. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROB MILLER
WOODLANDS DEVELOPMENT, System No. 4010081
P.O. BOX 19
ARROYO GRANDE, CA 93421

Dear: ROB MILLER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WOODLANDS DEVELOPMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WOODLANDS DEVELOPMENT
(Public Water System No. *4010081*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

217. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

218. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

219. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

220. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

221. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

222. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

223. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

224. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

244. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

245. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

246. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

247. The water system may stop lead sampling at a school if:

eeeee. All initial samples are less than or equal to 15 ppb; or

fffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhh. If requested in writing by the school's authorized school representative.

248. The water system is responsible for the following costs:

ccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

249. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

250. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

251. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggg. The date of the request;

hhhhhh. The date of the initial meeting;

iiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjj. The date of initial lead sampling and all repeat samples.

252. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Kugler
Executive Director
Woodville Farm Labor Center, System No. 5400792
5140 West Cypress
Visalia, CA 93279

Dear: Ken Kugler

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodville Farm Labor Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodville Farm Labor Center
(Public Water System No. 5400792)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ralph Gutierrez, Manager
Woodville Public Utility District, System No. 5410025
P.O. Box 4567
Woodville, CA 93258

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ralph Gutierrez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodville Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodville Public Utility District
(Public Water System No. *5410025*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WOODWARD BLUFFS MHP
Public Water System No. *1000298*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_043**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

ROBERT BERRY
PRESIDENT
YERBA BUENA WATER COMPANY, System No. 5610006
PO BOX 3829
PASO ROBLES, CA 93447

Dear: ROBERT BERRY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the YERBA BUENA WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

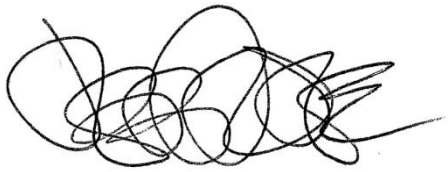

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

YERBA BUENA WATER COMPANY
(Public Water System No. *5610006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

617. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

618. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

619. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

620. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

621. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

622. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

623. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

624. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

694. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

695. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

696. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

697. The water system may stop lead sampling at a school if:

wwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

698. The water system is responsible for the following costs:

yyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

699. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

700. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

701. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwwwwwwww. The date of the request;

xxxxxxxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzzzzzzz. The date of initial lead sampling and all repeat samples.

702. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Benjamin Ruiz
Interim Director
Yettem Water System, System No. 5403043
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yettem Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yettem Water System
(Public Water System No. 5403043)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Thomas
Board President
Yokohl Mutual Water Co., System No. 5400647
1017 W. Cambridge Avenue
Visalia, CA 93277

Dear: Mike Thomas

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yokohl Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yokohl Mutual Water Co.
(Public Water System No. 5400647)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Steve Conklin
General Manager
Yorba Linda Water District, System No. 3010037
P.O. Box 309
Yorba Linda, CA 92885

Dear Mr. Conklin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yorba Linda Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yorba Linda Water District
(Public Water System No. 3010037)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joseph Zoba, General Manager
Yucaipa Valley Water District
System No. 3610055
P.O. Box 730
Yucaipa, CA 92399

Dear: Joseph Zoba,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yucaipa Valley Water District
(Public Water System No. *3610055*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Lori Johnson
General Manager
Yuima Municipal Water District IDA, System No. 3700938
PO Box 177
Pauma Valley, CA 92061

Dear Lori Johnson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yuima Municipal Water District IDA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yuima Municipal Water District IDA
(Public Water System No. *3700938*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Lori Johnson
General Manager
Yuima Municipal Water District, System No. 3701408
PO Box 177
Pauma Valley, CA 92061

Dear Lori Johnson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yuima Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yuima Municipal Water District
(Public Water System No. *3701408*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ZONNEVELD DAIRY - CEDAR
Public Water System No. *1000369*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_049**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ZONNEVELD DAIRY - CERINI
Public Water System No. *1000627*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_067**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

LEAD AND COPPER RULE REVISIONS WHITE PAPER

October 2016

U. S. Environmental Protection Agency

Office of Water

Washington, DC 20460

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I. Executive Summary

Exposure to lead is known to present serious health risks to the brain and nervous system of children. The recent crisis in Flint, Michigan, has brought increased attention to the challenge of lead in drinking water systems across the country. It is important to recognize that major reductions in been achieved in childhood exposure to lead in the United States. Data show that from 1976 – 1980 the median blood lead level of a child (1-5 years old) was 15 micrograms per deciliter. That median level has been reduced dramatically since then, to 1 microgram per deciliter, based on the most recent data. Further, over the last twenty-five years, the percentage of children aged 1–5 years with blood lead levels less than or equal to 5 micrograms per deciliter declined more than ten-fold, and blood lead levels fell dramatically for all racial and ethnic groups. These improvements were made by removing lead from toys and lead solder in cans, taking lead out of gasoline, reducing exposure to lead in paint and dust in homes and during renovations, greatly reducing the allowable content of lead in plumbing materials in homes and other buildings, and further reducing lead in drinking water through the federal Lead and Copper Rule (LCR). Although we have taken significant steps to protect our children from the detrimental effects of lead poisoning, there is more to do.

Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials. Lead was widely used in plumbing materials until Congress banned its use in 1986, and there are an estimated 6.5 to 10 million homes served by lead service lines (LSLs) in thousands of communities nationwide, in addition to millions of older buildings with lead solder across the U.S. Lead exposure, whether through drinking water, soil, dust or air, can result in serious adverse health effects, particularly for young children. Infants and children exposed to lead may experience delays in physical and mental development and may show deficits in attention span and learning disabilities. In adults, lead exposure can cause kidney problems and high blood pressure. Copper exposure can cause stomach and intestinal distress, liver and kidney damage, and complications of Wilson's disease in genetically predisposed people.

In 1991, EPA promulgated the LCR – a treatment technique regulation under the Safe Drinking Water Act (SDWA) – to protect public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity through corrosion control treatment. This rule applies to 68,000 public water systems nationwide. EPA has continued to work to make the LCR more effective through interim revisions promulgated in 2000 and 2007.

Implementation of the LCR over the past twenty-five years has resulted in major improvements in public health; the number of the nation's large drinking water systems with a 90th percentile sample value exceeding the LCR action level of 15 parts per billion has decreased by over 90 percent since the initial implementation of the LCR. However, the regulation and its implementation are in urgent need of an overhaul. Lead crises in Washington, DC, and in Flint, Michigan, and the subsequent national attention focused on lead in drinking water in other communities, have underscored significant challenges in the implementation of the current rule, including a rule structure that for many systems only compels protective actions after public health threats have been identified. Key challenges include the rule's complexity, the degree of discretion it affords with regard to optimization of corrosion control treatment and compliance sampling practices that in some cases, may not adequately protect from lead exposure, and limited specific focus on key areas of concern such as schools. There is a compelling need to modernize and strengthen implementation of the rule – to strengthen its public health protections and to clarify its implementation requirements to make it more effective and more readily enforceable.

EPA has conducted extensive engagement with stakeholder groups and the public to inform revisions to the LCR. In December of 2015, EPA received comprehensive recommendations from the National Drinking Water Advisory Council (NDWAC) and other concerned stakeholders on potential steps to strengthen the LCR. EPA is carefully evaluating the recommendations from these groups. In addition, EPA is giving extensive consideration to the national experience in implementing the rule as well as the experience in Flint, MI, as we develop proposed revisions to the rule.

Key Principles for LCR Revisions

EPA's goal for the LCR revisions is to improve public health protection while ensuring effective implementation by the 68,000 drinking water systems that are covered by the rule. This includes strengthening corrosion control treatment in drinking water systems to further reduce exposure to lead and copper and identifying additional actions that will equitably reduce the public's exposure to lead and copper when corrosion control treatment alone is not effective. In developing proposed revisions to the LCR, EPA will be guided by several key principles, including:

- Focus on Minimizing Exposure to Lead in Drinking Water: Improve public health protection by reducing exposure to lead in drinking water to the maximum amount possible through proactive measures to remove sources of lead and educating consumers about the health effects of lead and actions to reduce exposure.
- Clear and Enforceable Requirements: Improve implementation by designing a more prescriptive regulation with fewer discretionary decision points that rely on the judgment of individuals in states and drinking water utilities that may lack expertise in the complexities of corrosion control treatment and distribution system management.
- Transparency: Stronger programs to educate consumers about health risks and actions to reduce exposure to lead in drinking water, better access for consumers to information related to the location of LSLs, and more rapid test results of all tap samples and water quality parameter monitoring.
- Environmental Justice and Children's Health: Because of disparities in the quality of housing, community economic status, and access to medical care, lead in drinking water (and other media) disproportionately affects lower-income people. In addition, lead has disproportionate health effects on infants and children. In revising the LCR, EPA seeks to address environmental justice concerns and to prioritize protection of infants and children who are most vulnerable to the harmful effects of lead exposure.
- Integrating Drinking Water with Cross-Media Lead Reduction Efforts: Leveraging efforts of state and local public health authorities to provide integrated approaches to comprehensively reduce exposure to lead from drinking water, paint, dust, soil and other potential sources of exposure.

EPA is carefully considering NDWAC advice and other stakeholder input and is undertaking key analytical work to develop proposed revisions to the LCR. We are considering an approach that will incorporate both technology- based and health-based elements – to ensure effective reductions of lead in drinking water at the water system level, while at the same time providing consumers with the information, tools and protections needed to address remaining risks. We anticipate that these elements will be supported by clear and robust revised sampling requirements, strengthened reporting, transparency provisions that ensure consumers have rapid access to relevant information and public education materials. Key potential elements under consideration are discussed in Section 3; these elements are highly interdependent, and potential revisions to the rule must be considered in an integrated perspective.

II. Background

Health Effects of Lead

Over the past decade, epidemiologic studies have consistently demonstrated that there is no safe level of lead. In particular, studies conducted in diverse populations of children consistently demonstrate the harmful effects of lead exposure on cognitive function, as measured by IQ decrements, decreased academic performance and poorer performance on tests of executive function. Lead exposure is also associated with decreased attention, and increased impulsivity and hyperactivity in children. In adults, long-term lead exposure results in increased blood pressure and hypertension. In addition to its effect on blood pressure, lead exposure can also lead to coronary heart disease and death from cardiovascular causes and is associated with cognitive function decrements, symptoms of depression and anxiety, and immune effects in adults.

Health Effects of Copper

Copper has been demonstrated to cause gastrointestinal distress following short term exposure and can cause liver and kidney damage during longer term exposures. Copper exposures are of particular concern for people with Wilson's disease.

Lead in Plumbing Materials

The extent to which leaded materials occur in drinking water distribution systems and plumbing materials in homes and buildings (premise plumbing) varies across the U.S. Much of the variation is due to the quality and age of the housing stock; older homes are more likely to have pipes and plumbing materials containing lead. Where they are present, the most significant source of lead in drinking water are leaded pipes that extend from the water main underneath the street to the residence (lead service lines, or LSLs) however, faucets and fixtures with leaded brass and pipes with lead solder can also contribute to the presence of lead in drinking water. Water chemistry also plays a role in lead levels, because some water sources are more corrosive to leaded plumbing materials if not treated for corrosion control.

In 1986, Congress amended the Safe Drinking Water Act, prohibiting the use of pipes, solder or flux that are not "lead free" in public water systems or plumbing in facilities providing water for human consumption. At the time, "lead free" was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%. Prior to this, leaded materials were commonly used in plumbing materials and for service lines connecting residences and buildings to water mains. In 1996, Congress further amended SDWA to expand the prohibition to encompass plumbing fittings and fixtures and to prohibit the introduction into commerce of pipes, fitting, and fixtures, solder or flux that is not lead free. The Reduction of Lead in Drinking Water Act of 2011 created exemptions to the prohibitions and revised the maximum allowable lead content from not more than 8% to not more than a weighted average of 0.25% lead on the wetted surface; further reducing the amount of lead in contact with drinking water when that law became effective in January 2014. While these prohibitions have reduced the amount of lead allowed in covered plumbing materials after they went into effect, there are many buildings that still have LSLs and/or plumbing materials made with a higher percentage of lead than currently allowed for new installations or repairs of existing plumbing.

Summary of the Current Lead and Copper Rule

Under SDWA, EPA establishes national primary drinking water regulations (NPDWRs) which either establish a maximum contaminant level (MCL) or a treatment technique "to prevent known or anticipated adverse effects on the health of persons to the extent feasible." The Lead and Copper Rule (LCR) is a treatment technique rule, first promulgated in 1991 and revised in 2000 and 2007, which requires water systems to conduct tap sampling for lead and copper to determine the actions water systems must take to reduce exposure to lead and copper. Recognizing that there is no safe level of lead in drinking water, the LCR set a health-based maximum contaminant level goal of zero. Under the LCR, water systems must work with their customers to collect samples from locations with LSLs and/or leaded plumbing materials. The LCR established action levels of 0.015 mg/L (15 ppb) for lead and 1.3 mg/L (ppm) for copper, based on the 90th percentile sample level.

The action level for copper is set at the health-based maximum contaminant level goal for copper. The action level for lead is based upon EPA's evaluation of available data on corrosion control's ability to reduce lead levels at the tap. Corrosion control treatment (CCT) typically involves the addition of chemicals such as orthophosphate, or chemical adjustment of drinking water pH, to reduce the corrosivity of drinking water and thus the level of leaching of lead and copper from plumbing materials. Whereas an MCL is an enforceable level that drinking water cannot exceed without violation, an action level is a screening tool for determining when certain treatment technique actions are needed. If the lead or copper action level is exceeded in more than ten percent of tap water samples collected during any monitoring period (i.e., if the 90th percentile level is greater than the action level), a water system must take certain actions.

The type of action that is triggered depends upon the size of the system and the actions it has taken previously. All water systems serving more than 50,000 people were required to install corrosion control treatment soon after the LCR went into effect. Systems serving less than 50,000 people are not required to install corrosion treatment if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods. Systems serving less than 50,000 people that exceed the action level and have not yet installed CCT must begin working with their state to monitor water quality parameters and install and maintain CCT. Any system that exceeds the lead action level must conduct public education. Any system with LSLs that exceeds the lead action level after installing CCT must begin LSL replacement (LSLR). Although LSLR programs are conducted by public water systems, in many cases, the portion of the LSL that extends from the water main to the residential property line is owned by the water system, while the portion of the line that extends from the property line to the home is solely owned by the homeowner. Under the current rule, water systems conducting LSLR must offer building owners the opportunity to replace their portion of the line at the time the system is replacing the portion of the service line owned by the system, but the system is not obligated to pay for replacing the portion of the line it does not own.

Key Challenges with the Current Lead and Copper Rule

The LCR is one of the most complicated drinking water regulations for states and drinking water utilities to implement due to the need to control corrosivity of treated drinking water as it travels through often antiquated distribution and plumbing systems on the way to the consumer's tap. The LCR is the only NPDWR that requires sampling in homes, often by the consumers themselves. The rule includes complex sampling and treatment technique requirements intended to protect against exposure to lead and copper in drinking water. States and public water systems must have expertise and resources to identify the sampling locations and to collect and analyze samples correctly. Even greater expertise is needed for

systems and states to identify on a system-specific basis the optimal CCT and water quality parameter monitoring to assure effective operation. The current structure of the rule compels additional protective actions on the part of a water system only after a potential problem has been identified, which may create a disincentive for utilities to identify potential problems with lead and copper in the drinking water system. It is also worth noting that road construction activities or maintenance of gas or buried power lines can cause disturbance of LSLs, in some cases introducing high levels of lead into drinking water through the release of lead particulates into the drinking water distribution system.

When corrosion control alone is not sufficient, LSLR, public education, and further actions on the part of consumers to reduce their exposure to lead are necessary. Consumers' ability to understand and afford these actions can pose challenges. In most communities, LSLs are partially owned by the utility and partially owned by the homeowner; the cost of full LSLRs has been estimated to be $2,500-$5,500 per line, but some industry estimates for an average replacement are as high as $8,700 per line.

Summary of National Drinking Water Advisory Council Recommendations

The National Drinking Water Advisory Council (NDWAC) is a Federal Advisory Committee that supports EPA in performing its duties and responsibilities related to the national drinking water program. The council was created through a provision in the SDWA of 1974. The NDWAC LCR Working Group was formed to provide advice to EPA in considering potential revisions to the LCR. In December 2015, the NDWAC provided specific recommendations to the Administrator for LCR revisions including:

- Require proactive LSLR programs, which set replacement goals, effectively engage customers in implementing those goals, and provide improved access to information about LSLs, in place of current requirements in which LSLs must be replaced only after a lead action level exceedance (ALE);
- Establish more robust public education requirements for lead and LSLs, by updating the Consumer Confidence Report (CCR), adding targeted outreach to consumers with LSLs and other vulnerable populations (pregnant women and families with infants and young children), and increasing the information available to the public;
- Strengthen CCT, retaining the current rule requirements to re-assess CCT if changes to source water or treatment are planned, adding a requirement to review updates to EPA guidance to determine if new scientific information warrants changes;
- Modify monitoring requirements to provide for consumer requested tap samples for lead and to utilize results of tap samples for lead to inform consumer action to reduce the risks in their homes, to inform the appropriate public health agency when results are above a designated household action level, and to assess the effectiveness of CCT and/or other reasons for elevated lead results;
- Tailor water quality parameters (WQPs) to the specific CCT plan for each system, and increase the frequency of WQP monitoring for process control;
- Establish a health-based, household action level that triggers a report to the consumer and to the applicable health agency for follow up;
- Separate the requirements for copper from those for lead and focus new requirements where water is corrosive to copper; and
- Establish appropriate compliance and enforcement mechanisms.

Summary of Other Stakeholder Input

EPA has also received recommendations for revisions to the LCR from other stakeholders including a NDWAC Working Group member who dissented on a number of the NDWAC recommendations, the

Flint Water Interagency Coordinating Committee, and local citizens impacted by the experience in Flint. These recommendations emphasize the importance of enforceable goals for LSLR, recognize the significant lead exposure risks that can accompany partial service line replacements (PLSLRs) and provide clearer and more prescriptive requirements for sampling and corrosion control protocols that reduce the opportunities for systems to generate biased sampling results or improperly implement corrosion control procedures. EPA has received input from other stakeholders similarly concerned with eliminating PLSLRs and strengthening the sampling and corrosion control provisions of the LCR. In addition, the Board of the American Water Works Association (AWWA), which represents drinking water utilities, voted unanimously in March of 2016 to support the NDWAC recommendations, including those that would ultimately lead to complete replacement of LSLs.

III. Key Issues and Potential Elements under Consideration

EPA expects that proposed revisions to the LCR will include both technology-driven and health-based elements that focus on proactive, preventative actions to avoid high lead levels and health risks. In addition, we expect to propose robust and ongoing communication and information sharing with consumers that will foster actions by consumers to reduce risks. The potential elements under consideration are interconnected components that together will address the challenges with the current rule and improve public health protection in the revised rule.

In developing revisions to the LCR, EPA must adhere to the SDWA's statutory requirements and achieve the greatest public health protection feasible. The SDWA requires that any treatment technique rule must prevent known or anticipated adverse effects on the health of persons to the extent feasible and revisions to any NPDWR must maintain or strengthen public health protection. In addition, EPA must prepare a Health Risk Reduction Cost Analysis to evaluate if the benefits justify the costs of the rule. EPA is committed to using the best available science. As knowledge about lead contamination in drinking water evolves, we will continue to engage with stakeholders and consider their viewpoints and relevant science in developing revisions to the LCR.

Lead Service Line Replacement

As noted above, LSLs, which connect a residence or building to the water main, can be a significant source of lead in drinking water. The total number of LSLs currently in use in the US is unknown; estimates range from 6.5 million to greater than 10 million homes that have service lines that are at least partially made of lead. The current LCR requires LSLR only after a lead ALE, and allows partial LSLR when an owner of a home or building is unable or unwilling to pay for replacement of the portion of the service line not owned by the water system.

In 2010, EPA asked its Science Advisory Board to evaluate the data regarding the effectiveness of the partial LSLR, in comparison to full line replacement. The EPA Science Advisory Board concluded in its 2011 report to EPA that:

> PLSLRs have not been shown to reliably reduce drinking water lead levels in the short term, ranging from days to months, and potentially even longer. Additionally, PLSLR is frequently associated with short-term elevated drinking water lead levels for some period of time after replacement, suggesting the potential for harm, rather than benefit during that time period. Available data suggest that the elevated tap water lead levels

tend to then gradually stabilize over time following PLSLR, sometimes at levels below and sometimes at levels similar to those observed prior to PLSLR. [1]

Much of the discussion regarding potential LCR revisions has focused on mandatory, proactive LSLR, as a potential opportunity to eliminate one of the primary sources of lead in drinking water, thus reducing reliance on corrosion control to reduce lead in drinking water at the tap.

The NDWAC has recommended that the Agency require proactive full LSLR programs with the following elements:

- Requiring all PWSs to establish a LSLR program that effectively informs and engages customers to encourage them to share appropriately in fully removing LSLs, unless the system can demonstrate that LSLs are not present in their system;
- Targeted outreach to customers with LSLs, with information about the risks of lead exposure, an offer to test a tap sample, and information about and encouragement to participate in the LSLR program;
- Dates by which systems should have met interim goals and completed replacement of all LSLs and partial LSLs, without penalty to the water system for those homeowners who refuse to participate in the replacement program as long as the water system has made a meaningful effort to work with such a homeowner;
- Creating incentives for understanding where LSLs and PLSLs exist, while making action on full replacement, rather than on investigation of the location of LSLs and PLSLs the priority;
- Maintaining ongoing-outreach to homeowners where LSLs or PLSLs still exist;
- Implementation of standard operating procedures (SOPs), either from EPA guidance or tailored to the system, that helps define operations that disturb LSLs and practices to minimize disturbance and consumer exposure to lead; and
- Stronger programs to educate consumers, and to provide test results of tap samples at the request of consumers.

It is important to recognize that LSLR presents substantial economic, legal, technical and environmental justice challenges. First, it is costly. Estimated costs for LSLRs range from $2500 to more than $8000 per line, suggesting an estimated cost of eliminating all 6.5 to 10 million LSLs nationwide ranging from 16 to 80 billion dollars. Potential costs may be disproportionately borne by specific low-income localities, such as Detroit, which has an estimated 100,000 LSLs and where 40 percent of the population is below the poverty line. Second, LSLs are often partially or totally owned by private homeowners. Under the current LCR, public water systems are responsible for replacement of LSL or the portion of the LSL it owns. This is typically the portion of the line from the water main to the property line. There are important legal questions about EPA's authority to mandate replacement of privately owned portions of lines and about water systems' authority under state or local law to require and/or pay for such replacement. To the extent water systems rely on homeowners to pay for replacement of privately owned portions of lines, there are concerns about consumer's ability to pay and the possibility that lower-income homeowners will be unable to replace lines, resulting in disparate levels of protection. However, a number of cities and towns across the nation have successfully implemented full LSLR and have developed innovative approaches to addressing these challenges, including Lansing, Michigan; Madison, Wisconsin; and more recently Boston, Massachusetts – and EPA is looking at this experience in the context of developing proposed revisions to the LCR.

[1] Science Advisory Board, U.S. Environmental Protection Agency, "Evaluation of the Effectiveness of Partial Lead Service Line Replacements," transmitted to Lisa Jackson, EPA Administrator, September 28, 2011.

EPA is considering proposing full LSLR programs. In assessing options for an LCR revision proposal, EPA is evaluating a number of important issues, including:

- The appropriate pace of LSLR and the mechanism for implementing and enforcing any LSLR program requirements. Consideration of number of LSLs that can feasibly be replaced on an annual basis will need to be considered as well as water system size.
- Costs and benefits of LSLR for reducing lead exposures. National costs could range from 16 to 80 billion dollars. Benefits will be estimated based upon avoided effects of lead exposure such as IQ loss in developing children. EPA will evaluate how much additional lead exposure reduction can be achieved in removing LSLs from water systems with optimized corrosion control. EPA will also evaluate other measures that can reduce lead exposure to assure that resources are focused on reducing the most significant sources of lead.
- How to provide for full LSLR where the utility does not own the full line, including an evaluation of whether a potential change to the definition of "control" under the SDWA would facilitate full LSLR.[2]
- Requiring drinking water utilities to update their distribution system materials inventory to identify the number and location of LSLs in their system.
- How to address potential equity concerns with LSLR requirements and consumers ability to pay for replacement of their portion of the LSL. Identifying and evaluating incentive and creative funding mechanisms are critical as is encouraging use of Drinking Water State Revolving Fund to the extent possible.
- How to address LSLR in rental properties, particularly where low income residents do not control the property or have the ability to contribute to the cost of LSLR.
- Whether to prohibit or otherwise limit partial LSLR, and how to address concerns related to potential disturbance of LSLs during emergency repairs to water mains that are connected to LSLs.
- How to address the short term increases in lead levels that can follow LSLRs (i.e., requiring water systems to provide filters when lines, or enhanced household flushing recommendations).

Improved Optimal Corrosion Control Treatment Requirements

Optimal Corrosion Control Treatment (OCCT) is the primary treatment technique on which the LCR focuses, and as noted above, it has been successful on a national basis in reducing lead and copper levels at the tap. Even if the revised LCR includes requirements for full LSLR, full replacement of LSLs would likely take decades to complete, and LSLR will not address potential risks from lead and copper materials present in premise plumbing in tens of millions of homes across the U.S. As a result, CCT requirements will continue to be a key element of a revised LCR.

Since the initial implementation of the LCR, systems have faced ongoing challenges of continuing to maintain optimal corrosion control while making necessary adjustments to treatment processes or system operations unrelated to corrosion control to comply with other NPDWRs. Determining whether treatment is optimized can be challenging for individual systems, given the wide variability in

[2] The Safe Drinking Water Act defines the term public water system as "…a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities ***under the control of*** the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system."

distribution system composition, source water characteristics and approaches to complying with other NPDWRs, such as the surface water treatment rules. While the impact of changes in some water quality parameters on lead and copper levels are well understood, such as fluctuations in pH or alkalinity, others are more complex, such as the quantity and type of disinfectant used or the chemical composition of the protective scales within the LSLs. Small and medium systems (those serving <50,000 persons) are not required to commence development of a CCT plan under the existing LCR unless they have a lead ALE.

The NDWAC recommends that:

- EPA release a revised CCT guidance manual as soon as possible and update this manual every six years, so that PWSs and primacy agencies can take advantage of improvements in the science;
- EPA provide increased expert assistance on CCT to PWSs and primacy agencies;
- The LCR continue to require re-evaluation of CCT when a PWS makes a change in treatment or source water;
- The LCR continue to require water quality parameter monitoring to ensure that the OCCT is achieving the treatment objectives and that EPA consider requiring such monitoring on a more frequent basis with additional guidance on process control methods; and
- Large systems review their existing CCT plan in light of current science in a newly revised guidance manual with their primacy agency to determine whether the WQPs reflect the best available current science.

Recognizing the continuing central importance of CCT in reducing lead exposures, EPA is considering a range of options for strengthening CCT requirements in the proposed rule that could help to provide clearer requirements, reduce uncertainty, and ensure broader and more consistent proactive application of CCT to avoid high lead levels. Options under consideration include:

- Requiring large water systems (serving > 50,000 persons) to evaluate and re-optimize CCT when EPA publishes updated CCT guidance. This option would provide a mechanism to ensure water systems are considering the best available science to inform treatment decisions.
- Given that CCT is also effective at reducing lead leaching in premise plumbing (not just LSLs), requiring all systems in the U.S. to implement CCT, regardless of system size, tap sampling results, or the presence of LSLs; or alternatively, broadening the categories of systems for which CCT is required; requiring all systems to assume that their distribution system includes the presence of LSLs unless or until they provide the primacy agency with a robust distribution system materials evaluation that demonstrates that this is not the case.
- Requiring water systems that are already applying CCT that exceed the lead action level to evaluate and re-optimize CCT.

Incorporating a Health-Based Benchmark to Strengthen Protection

Although the current LCR is focused on protecting public health by reducing lead and copper exposures, it does so through “technology-based” requirements. The 1991 LCR established an action level for lead of 15 ppb (for the 90th percentile sample) based on an assessment that it was generally representative of effective CCT. Although public discussion often mistakes the action level as having significance in terms of health impacts, EPA has consistently emphasized that the health-based maximum contaminant level goal (MCLG) for lead in the current LCR is zero and that there is no safe level of lead exposure. While the future LCR will maintain treatment technique requirements (e.g., CCT, public education and LSLR) to reduce lead exposures, a health-based benchmark for lead in drinking water could help to guide appropriate actions to communicate and mitigate risk, particularly at the household level.

As part of its 2015 recommendations, the NDWAC suggested that EPA establish a "household action level" based on the amount of lead in drinking water that would raise an average, healthy infant's blood lead level to greater than five micrograms per deciliter based on consumption of infant formula made with water. According to the NDWAC recommendations, water systems would be required to notify the consumer and the local public health agency if this level were exceeded – with the expectation that individuals and local officials will use this information to take prompt actions at the household level to mitigate lead risks.

While EPA has not yet determined the specific role of a health based benchmark for lead in drinking water in the new rule, the Agency sees value in providing states, drinking water systems and the public with a greater understanding of the potential health implications for vulnerable populations of specific levels of lead in drinking water. EPA is currently developing up-to-date scientific modeling of the relationship between lead levels in drinking water and blood lead levels – particularly for sensitive lifestages such as formula-fed infants and children under age 6. EPA expects to conduct an expert peer review panel to identify approaches to derive a health based value for lead in drinking water. Following this public peer review process, EPA expects to evaluate and determine what specific role or roles a health-based value may play in the revised LCR. EPA anticipates that the proposal will consider the "household action level" approach recommended by the NDWAC, but a health-based value could also help to inform other potential elements of a revised LCR – including public education requirements, prioritization of households for LSLR or other risk mitigation actions at the household level, and potential requirements related to schools or other priority locations.

Considering the Potential Role of Point of Use Filters

One of the insights that has emerged from work in response to the crisis in Flint, Michigan, is the efficacy of point-of-use household filters in reducing lead levels at the tap. There are a broad array of point-of-use filters that are certified by independent third party labs for lead reduction. Recently, EPA collected samples from these filters installed on taps in Flint, Michigan, and verified that these filters are effective in reducing lead levels. Filters require periodic replacement of cartridges to remain effective. The SDWA requires point of use devices specified as a feasible technology to achieve compliance with an MCL or treatment technique requirements to be owned, controlled, and maintained by the water utility. While filters are not an appropriate substitute for CCT, LSLR, or other actions to properly manage and reduce lead levels at the system level, EPA is considering role for filters in addressing risks from lead and copper at the household level. Potential roles include requiring point of use filters where there has been a disturbance of a LSL or where tap sampling indicates an exceedance of a health-based benchmark or action level.

Clarify and Strengthen Sampling Requirements

The goal of the LCR sampling requirements – including site selection criteria and tap sampling procedures — is to cost effectively assess the effectiveness of a water system's CCT and to trigger additional actions to reduce exposure when necessary. The target locations in the LCR are focused on the homes that are likely to have the highest risk for lead exposure. The lead sampling protocol requires a one liter first draw sample collected after water has remained stagnant for at least 6 hours. Implementation of the sample site selection criteria and the sampling protocol are challenging and provide opportunity for error, particularly given that samples are collected by the residents themselves. In addition, numerous stakeholders have criticized the current rule as providing too much discretion in sampling approaches and providing opportunities for systems to implement their sampling procedures

to avoid exceeding the action level, even in circumstances where corrosion control has not been optimized.

On February 29, 2016, EPA issued a memorandum encouraging states and drinking water utilities to implement protective LCR sampling procedures, based on lessons learned in Flint, Michigan, and other communities. These sampling procedures include eliminating the practice of flushing the tap prior to the mandatory 6-8 hour stagnation period (pre-stagnation flushing), ensuring that faucet aerators are not removed prior to conducting tap sampling under the LCR, and encouraging the use of wide mouth bottles for collection of tap samples to avoid the loss of any of the first draw sample. EPA expects to incorporate each of these recommended sampling procedures as proposed requirements in the proposal for the revised LCR.

In addition, EPA has increased oversight of state programs to ensure effective implementation of the LCR. As part of these efforts, EPA sent letters on February 29, 2016, to state commissioners to ensure consistency with EPA regulations and guidance. The letter requested that primacy agencies work collaboratively with EPA to ensure national consistency and improve transparency and public information regarding the implementation of the rule.

The majority of the states confirmed that they have been consistent with EPA guidance and the LCR. Some primacy agencies specifically stated in their response that they would be undertaking steps to ensure that their protocols and procedures follow the LCR and applicable guidance. Regarding the use of EPA guidance on LCR sampling protocols and optimization corrosion control procedures, the majority of the primacy agencies confirmed that they use relevant guidance and protocols for sampling and corrosion control. Some primacy agencies had previously encouraged pre-flushing but stated they would update their protocols to ensure consistency with the recently published EPA sampling memo.

The NDWAC recommends that a voluntary customer-initiated sampling program based on a more robust and targeted public education be substituted for the current LCR tap sampling requirements.
The results of the voluntary tap sampling program would be used for three separate purposes:

- Informing and empowering individual households to take action to reduce risk;
- Reporting to health officials when monitoring results exceed a “household action level”; and
- Providing an ongoing source of information to the utility to assess effectiveness of CCT.

In the proposed LCR revisions, EPA intends to propose clear and robust sampling requirements to serve the goals of: (1) providing appropriately robust information on how the overall system is performing in reducing lead levels; and (2) providing information on household levels that can be compared to health-based levels, to help guide mitigation actions at individual homes.

EPA is continuing to evaluate specific procedures for tap sampling, including:

- The continued use of “first draw” tap samples, sequential sampling to characterize lead levels in drinking water that has been in contact with premise plumbing and the LSL, random daytime samples, whether the rule should include a variety of tap sampling protocols to meet different needs for customers and the system, and whether the rule should provide for systems to sample customer’s taps on request.
- Mandatory sampling for schools that are not public water systems in the revised LCR, given the presence of vulnerable populations in the school environment and the ongoing challenges that schools continue to encounter with elevated lead levels in drinking water.

- ORD partnering with technology developers in industry and academia to identify available technologies that can be used to support real-time monitoring of water quality parameters for measuring the effectiveness of corrosion control in the distribution system.

Increased Transparency and Information Sharing

Transparency and public sharing of data and information is a cornerstone of EPA's efforts to strengthen the effectiveness of its rules. The drinking water crisis in Flint, Michigan, and subsequent focus on lead issues in other communities has underscored the need for transparency with the public in implementing actions to reduce lead in drinking water. EPA took important steps to advance these efforts on February 29, 2016, when the Agency sent letters to every governor and drinking water primacy agency responsible for implementing the LCR, urging a series of actions to address risks from lead in drinking water. The Agency called on primacy agencies to work with public water systems to increase transparency in implementation of the LCR by posting on their public websites:

- the materials inventory that systems were required to complete under the LCR, including the locations of LSLs, together with any more updated inventory or map of LSLs and lead plumbing in the system; and
- LCR compliance sampling results collected by the system, as well as justifications for invalidation of LCR samples.

The Agency also asked that states enhance efforts to ensure that residents promptly receive lead sampling results from their homes, together with clear information on lead risks and how to abate them, and that the general public receives prompt information on high lead levels in drinking water systems.

Many of the responses from state commissioners identified practices and policies that enhance the implementation of the LCR and increase public transparency. States identified opportunities to promote transparency at the state level by posting individual lead compliance samples, and not just the 90th percentile values on their public websites utilizing the Drinking Water Watch or similar tools. To complement this effort, some public water systems are providing online searchable databases that provide information on known locations of LSLs, or providing videos that show homeowners how to determine whether their home is served by a LSL.

To shorten reporting and notice timeframes, some states have adopted more stringent timelines for water systems to provide consumer notices to all who receive water from sites that were sampled and resulted in a lead ALE. While the LCR allows up to 30 days, some states are requiring notice to consumers as quickly as 48 hours after sampling. In addition, some states require laboratories that analyze lead compliance samples to contact the state within 24 hours of confirming that a sample analysis has exceeded the 15 parts per billion action level for lead. Consistent with the EPA's 2013 E-Reporting Policy[3] the agency intends to use, to the maximum extent practicable, common agency tools, information systems, and data sets for E-Reporting for the revised LCR. E-Reporting can facilitate faster access to data and other information critical to consumers to understand lead and copper levels in their drinking water and within the water system and to make informed decisions regarding actions they may take to reduce exposure from lead in drinking water.

The NDWAC recommends that EPA strengthen requirements for public access to information about LSLs, tap monitoring results and other relevant information. Enhanced requirements for sharing compliance

[3] https://www.epa.gov/compliance/policy-statement-e-reporting-epa-regulations

data and other information with the public can play a critical role in strengthening the protections provided by the LCR. By providing individuals and communities with prompt and accurate information, the LCR can help to leverage broader public involvement and engagement in ensuring accountability, consistency in meeting regulatory requirements, and prompt action to mitigate high lead levels or other risks, both at the system and household level.

Accordingly, the agency expects to propose stronger public transparency elements for the revised LCR. Measures under consideration include:

- Requiring drinking water utilities to post all LCR sampling results and sample invalidation justifications on their publicly accessible website in a form that protects the privacy of customers;
- Mandating shorter time frames for providing lead sampling results to consumers;
- Mandating shorter time frames for providing the public with public health education when high lead levels are detected in their drinking water system;
- Enhanced requirements for sharing the results of the materials evaluation conducted by drinking water system, including publicly identifying the location of LSLs within the community in a way that protects privacy of homeowners;
- Enhanced requirements for states to publicly identify each system within their state that is currently or has recently experienced an ALE, along with the specific steps the system is required to fulfill and their progress in implementing these requirements
- Requiring systems to provide information on the number of lead tap samples collected, number of samples that exceed the lead action level, information about voluntary sample results and any recent changes to CCT or water quality parameters that might affect lead levels in their water; and
- Requiring more timely electronic reporting of sampling results to primacy agencies and EPA.

Public Education Requirements

A critical element of the LCR is public health education to ensure that the public has easy access to clear information on lead and copper risks in drinking water and how to mitigate them. The current LCR requires public health education in response to a lead ALEs. One concern with this approach is that systems can have up to 10 percent of homes with highly elevated levels of lead in drinking water without causing an ALE and triggering the public health education requirements of the rule.

The NDWAC recommends that:

- EPA establish an easily accessible, national clearinghouse of information about lead in drinking water to serve the needs of the public and of public water systems;
- Require information be sent to all new customers on the potential risks of lead in drinking water;
- Revise the current CCR language to address LSLs and update the health statements;
- Add requirements for targeted outreach to customers with LSLs; and
- Expand the current requirements for outreach to caregivers/health care providers of vulnerable populations.

EPA is considering modifications to the rule to strengthen the public education requirements by requiring ongoing, proactive and targeted public education to effectively communicate drinking water lead risks, promote tap sampling, and provide actions consumers can take to reduce lead exposures regardless of ALEs by the system.

The Agency is also considering requiring water utilities to provide information on lead risks to all new customers at the time of service connection, expanding the current LCR requirements for public outreach to caregivers and healthcare providers for vulnerable populations, and revising the current requirement for CCRs so that these reports address the status of LSLs in each city.

Customers with LSLs are at heightened risk for lead exposures in drinking water. EPA is considering a number of potential public education requirements in the proposed LCR revisions to help mitigate these risks, including:

- Requiring water systems to provide targeted outreach to customers with LSLs and to provide these customers with invitations to have their water tested and to participate in a LSLR program, regardless of ALEs in the system;
- Requiring water system to provide public access for LSL inventories, which would include the locations of those service lines;
- Requiring that customers be notified of emergency or planned maintenance that may disrupt LSLs, therefore increasing lead levels, and be provided with information on actions that can be used to mitigate exposure; and
- Requiring a standard operating procedure be prepared and provided to other utilities who may disturb LSLs for maintenance or capital improvements.

Potential Revised Copper Requirements

Published corrosion literature since 1991 on copper has shown that copper and lead leaching patterns differ. The current LCR sample site selection criteria targets highest-risk lead sites, and tap samples for both lead and copper are collected at these locations. Some stakeholders have expressed concerns that elevated levels of copper may be missed using this approach.
The NDWAC Recommends:

- Instead of basing action on the results of routine, in-home copper sampling, actions should be based on the aggressiveness of the water to copper. Systems can determine if their water is aggressive to copper by doing WQP monitoring in the distribution system. All PWSs should be assumed to have water that is aggressive to copper unless they demonstrate that it is not.
- EPA should develop criteria to define water that is not aggressive to copper for the purpose of establishing whether a system falls into that category (or “bin”) for the purposes of the LCR. EPA should consider the accuracy and potential variability of pH and alkalinity monitoring as well as corrosivity to copper in establishing pH and alkalinity ranges. The criteria also should include consideration of passivation time.
- PWSs can choose one of several approaches to demonstrate that their water is not aggressive to copper.
- PWSs with water classified as non-aggressive to copper must continue to demonstrate that the water is non-aggressive. PWS’s can choose to:
    - Maintain those WQPs that demonstrate it maintains non-aggressive water, or
    - Conduct copper sampling at vulnerable homes (houses < 2 years old with new copper plumbing) to demonstrate that water chemistry is non-aggressive cooper levels fall under the AL/MCL).

EPA is considering modifications to the LCR requirements to provide greater attention to the potential risks associated with elevated levels of copper in drinking water. Options that are being considered include modifications to the sample site selection criteria to include sites that are at greatest risk of producing elevated levels of copper, and developing water quality parameters designed to identify

systems that have water aggressive to copper. Systems with aggressive water could be required to install CCT and/or conduct public education for copper, while systems with nonaggressive water could be required to periodically demonstrate that leaching of copper is not a concern for the water system.

Relationship with Broader Lead Issues

While the LCR revisions are focused on lead in drinking water, EPA recognizes that the ultimate goal is comprehensive reduction in exposures to lead from all contaminated media, some of which may present greater risks than drinking water in individual communities or homes.

Lead can be ingested from various sources, including lead paint and house dust contaminated by lead paint, as well as soil, drinking water, and food. The effects of lead exposure are generally measured by blood lead levels. As a result of the multitude of possible exposure pathways, the contribution from specific pathways (e.g., consumer products, diet, soil, ambient air) to blood lead concentrations can vary widely for each individual.

Young children, infants, and fetuses are particularly vulnerable to lead because their behavior patterns typically lead to higher exposures, they absorb a greater proportion of the lead they ingest than adults, physical and behavioral effects of lead occur at lower exposure levels in children than in adults, and the central nervous system of children undergoes rapid development and impacts during this period can have lifelong effects.

EPA estimates that drinking water can make up 20 percent or more of a total exposure to lead. In some circumstances, infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Current water sampling protocols were designed to assess the adequacy of CCT, not the level of human exposure to lead. Important fluctuations in water lead levels can be missed because of limitations inherent in sampling protocols that EPA uses, making it difficult to assess household exposure through drinking water.[4]

Pathways of exposure to lead related to ambient air include both inhalation of lead and ingestion of lead in dust or soil that originated in the ambient air. For example, dietary lead exposure may be air-related if ambient air lead deposits on plant materials or in water that becomes available for human consumption. (They may also be water-related if cooking is undertaken in tap water with high lead levels.)

Dust and soil particles containing lead are typically in the size range that is ingested rather than inhaled. However, soil can act as a reservoir for deposited lead emissions, and exposure to soil contaminated with deposited lead can occur through re-suspended particulate matter as well as hand-to-mouth contact, which is the main pathway of childhood exposure to lead.

To address these concerns, EPA is committed to continuing to work with federal, state and local partners to reduce lead risks in all contaminated media**.**

[4] Brown, Mary Jean and Margolis, Stephen, Division of Emergency and Environmental Health Services, National Center for Environmental Health, Centers for Disease Control, "Lead in Drinking Water and Human Blood Lead Levels in the United States," *Morbidity and Mortality Weekly Report*, August 10, 2012.

IV. Conclusion

It is critical that EPA thoughtfully revise the LCR to strengthen the rule to reduce exposure to lead in drinking water, especially for infants and children and communities bearing a disproportionate risk. It is also important that LCR revisions improve implementation and enforceability of the rule requirements. This paper provides examples of regulatory provisions EPA is considering and evaluating in order to improve public health protection. While EPA has received extensive recommendations from NDWAC and other stakeholders, the Agency is committed to continue to engage with stakeholders and consider all viewpoints in revising the LCR. EPA is committed to using the best available science and to conducting robust analyses of regulatory options that have been informed by stakeholder input. The Agency welcomes input and feedback on the ideas presented in this paper to support development of a Notice of Proposed Rulemaking of LCR Revisions for publication in the Federal Register and public review and comment in 2017.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On August 15, 2018, I served the:

- **SWRCB's Comments on the Test Claim filed August 13, 2018**
- **Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 filed August 13, 2018**
- **Finance's Comments on the Test Claim filed August 13, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on August 15, 2018 at Sacramento, California.

Lorenzo Duran
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 8/10/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

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